CTC Yardstick
To Measure Benefits—P. 38

Should RRs Seek Subsidies? . . . p. 52

RAILWAY AGE

JUNE 10, 1957 • THE INDUSTRY'S NEWSWEEKLY

Men Who Build the Future of American Railroads

"The dynamic growth relationship between the railroads and the territories they serve is amply illustrated in the Northwest. This vigorous development began with the elimination of old territorial frontiers, the creation of new states. And the growth process has only started. Our industries are on the move; population is increasing rapidly.

"With equal vitality, the Northern Pacific pursues an aggressive program of improvement—continuous welded rail, heavy crushed rock ballast, radio communication, 'push-button' freight classification yard, modern machine accounting. Modern Diesels have cut transcontinental freight schedules by an entire day—and we are nearing complete Dieselization. Reasons enough why the Northern Pacific looks with confidence to a bright future—both for the railroad and the Northwest."

ROBERT S. MACFARLANE, President, Northern Pacific Railway Company

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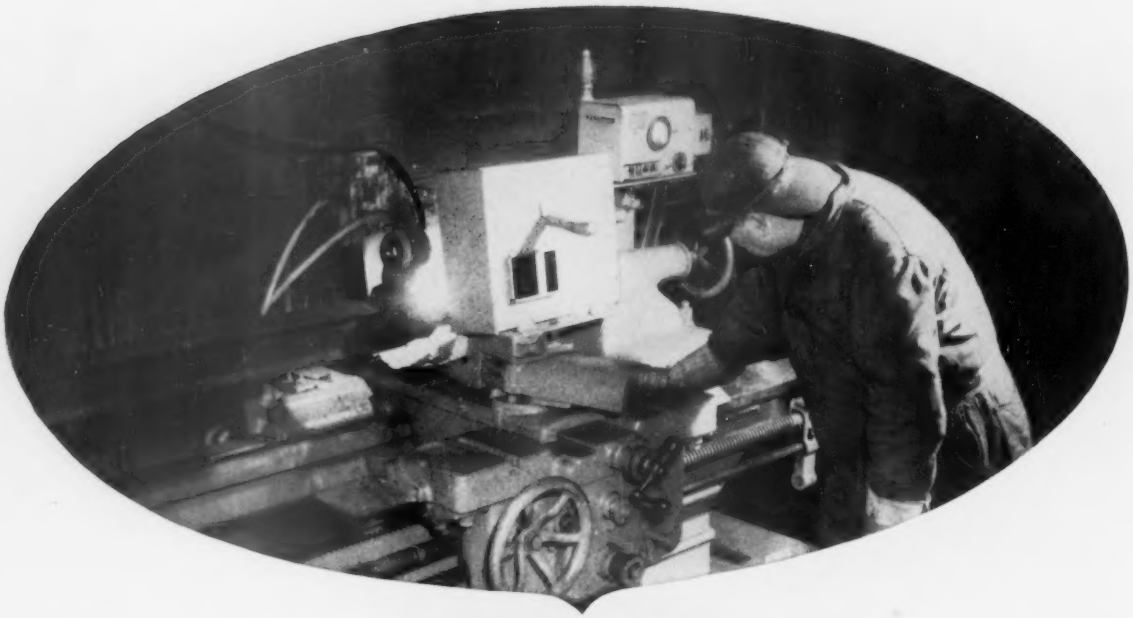
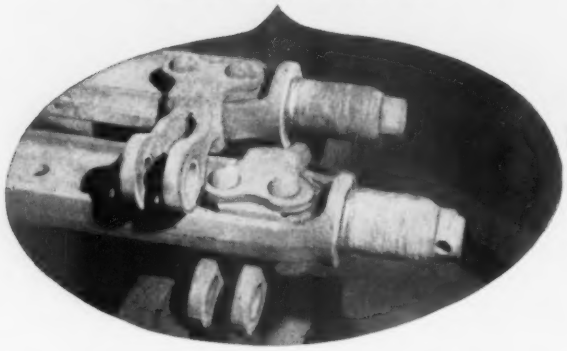
In Canada: General Motors Diesel Ltd., London, Ontario



REBUILD WITH SIGMA ...AND SAVE!



The New York Central System saves more than $5,000 a year by using Sigma welding to rebuild passenger car brake beams. Previously, it took 30 minutes to rebuild trunnions on a single brake beam by manual arc welding. Now, the same operation is completed in only 6 minutes —thanks to the speed and efficiency of automatic Sigma welding. This greater speed provides savings of more than one dollar for every brake beam rebuilt.

Sigma welding's combination of automatic wire feed and argon gas shielding is simplifying and speeding a wide range of jobs in shops across the nation. Both manual and automatic mechanized installations are easy to operate and maintain.

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DIVISION OF UNION CARBIDE CORPORATION

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Where track must be held in precise gage ...Bethlehem gage rods

On sharp curves, where outside joints have a tendency to "kick out," gage rods provide a reliable solution to the problem of gage maintenance. Placed on each side of the joint and at other appropriate points along the curve, they prevent spreading and hold the track in precise alignment and gage.

Bethlehem gage rods are forged steel rods 1¼ in. in diameter, with either a forged or a bent hook on one end, and a heavy adjustable clip with nut on the other end. Clips can be furnished either forged or malleable iron, insulated or non-insulated.

There are many points where the use of Bethlehem gage rods will prove advantageous: at heels of frogs and toes of switches; on bridge approaches and in tunnels; on roundhouse and turntable leads, and locomotive service tracks. In short, wherever operating conditions cause trouble in holding track to gage, you can benefit from Bethlehem gage rods.

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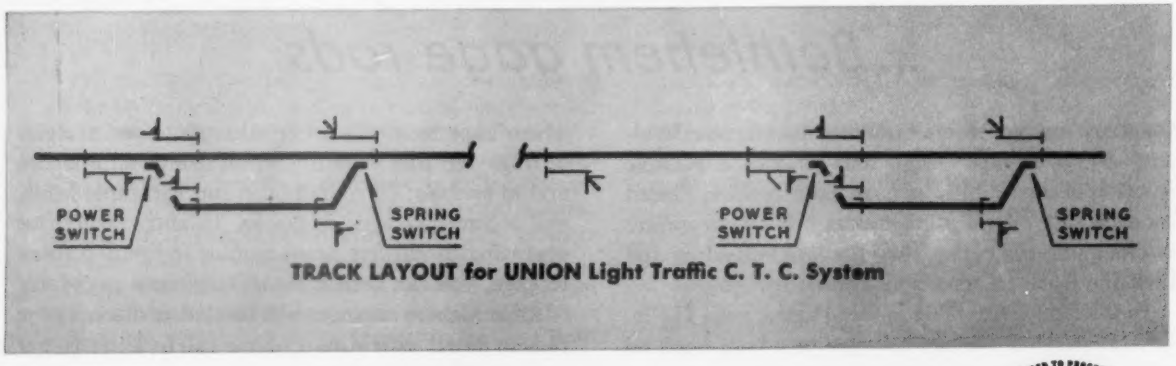
UNION C.T.C. for LIGHT TRAFFIC LINES?

Here is a new low-cost C. T. C. system that can be installed at a cost comparable to automatic block signaling. It provides increased safety and all the basic functions of the more elaborate C. T. C. systems.

The new system complies with I. C. C. regulations and the A. A. R. Standard Code. It can be expanded readily to accommodate future changes in traffic.

We have prepared a comprehensive bulletin describing this system in detail. If you want to obtain a modern, efficient and flexible traffic control system at the lowest possible cost, write to our nearest district office. Ask for Bulletin No. 168.



TRACK LAYOUT for UNION Light Traffic C. T. C. System

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY
SWISSVALE, PENNSYLVANIA

GEARED TO PROGRESS — P R I — MEMBER

NEW YORK.....PITTSBURGH.....CHICAGO.....SAN FRANCISCO

RAILWAY AGE The Industry's Newsweekly

Vol. 142, No. 23
June 10, 1957

Departments

Financial	34
Freight Car Loadings	13
New Equipment	13
Organizations	34
Questions and Answers	18
People in the News	51
Railroading After Hours	40
Railway Market	13
Supply Trade	51
The Action Page	52
What's News in Products	22

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PAID CIRCULATION THIS ISSUE ...14,580

CONTENTS and
Week at a Glance

Cooperation is the key to RRs' future ..... p. 9

Only by working together—management with labor and railroad with railroad—can the industry prosper. This was the gist of two addresses at last week's Superintendents' convention—one by Guy L. Brown of the BLE, and the other by H. W. Von Willer, president of the Erie.

RRs want a 'decent standard of living' p.10

The freight-rate increases proposed in the Ex Parte 206 case are needed, the Interstate Commerce Commission was told last week, unless a return of only about 4% is to become a regulatory policy.

Here's a 'yardstick' for CTC p.38

Detailed studies of train operations on many divisions of numerous railroads—to establish measurements of train interference—will enable managements to foretell just how they can benefit from proposed installations of centralized traffic control.

'Champ' Davis is retiring p.41

Champion McDowell Davis, an Atlantic Coast Line employee for 64 of his almost 78 years, has asked the company's directors, at their next meeting on June 20, to relieve him of all his duties—as soon as his successor is ready to take them over. Mr. Davis has been ACL president since 1942.

B&O aims to cut bad orders to 3% p.42

To achieve this goal, which the road expects to reach by 1960, it is standardizing its freight-car designs, changing its car repair concepts, and realigning its car repair forces. Here's how the program operates.

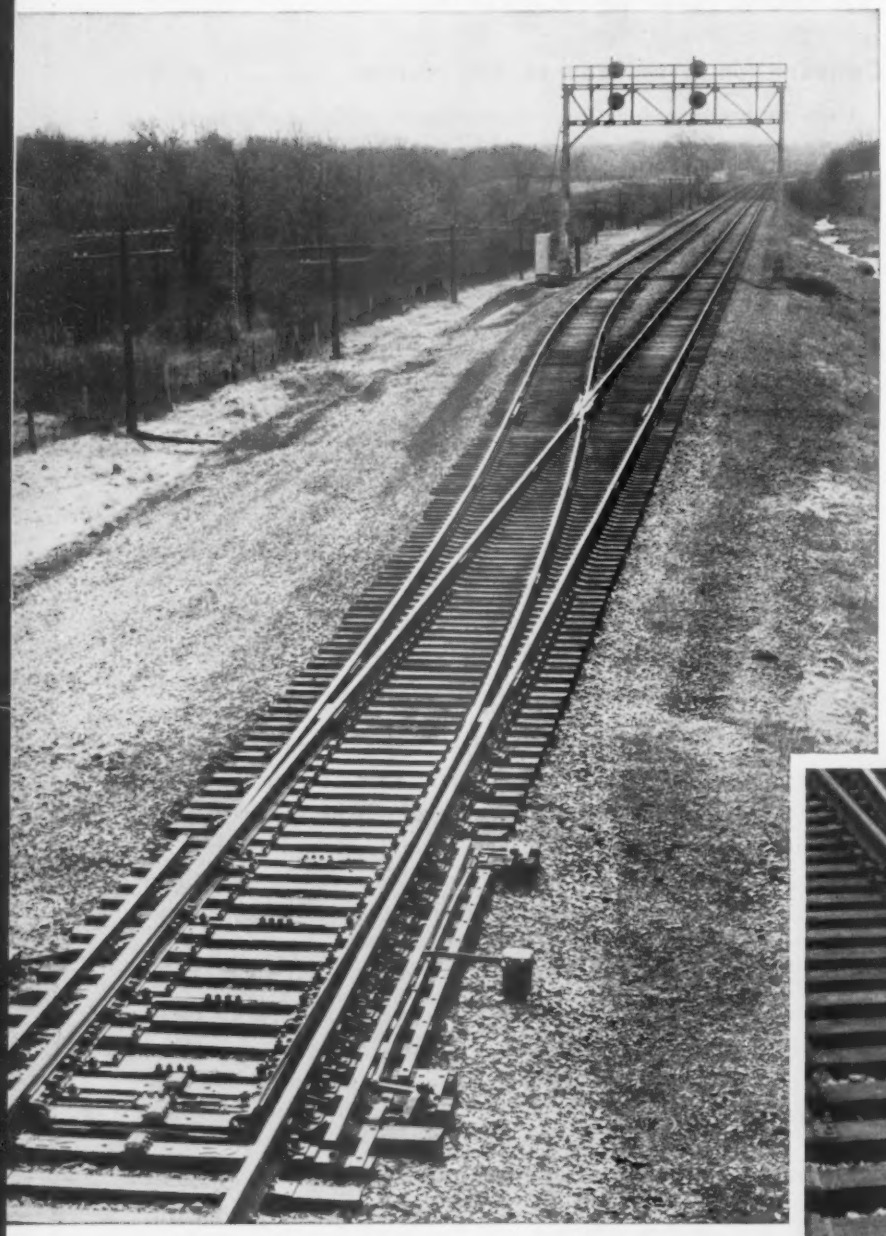
Can bridge-building costs be cut? p.44

Answers to this question, contends Dan S. Bechly of the Illinois Central, must take into account not only today's lighter motive power, but also the nature of the traffic. Then, too, who knows what the locomotive of the future will be? It may be heavier than the disappearing "steamers."

USS Heavy-Duty Interlocked Turnout carries heavy freight traffic at 40 mph on new CTC installations

Bessemer and Lake Erie's new CTC installation from Albion to North Bessemer, Pa., (125 miles) carries heavy freight—and lots of it. Day-in day-out, around the clock, long trains carrying coal and ore whistle by at 40 miles an hour. Punishing traffic like this calls for the best in trackwork, especially frogs and switches.

HEAVY • FAST • POWER-OPERATED



The USS Turnout shown here is designed for operations where heavy freight trains move rapidly over interlocked switches. To combat side thrust, USS designed a rigid split switch with Sampson-type points that are doubly reinforced, insulated and heat-treated. In addition, special plating together with USS Taylor* Rail Braces was also used in this switch. The #20 railbound manganese steel frog is type A.R.E.A. 625, with special plating.

Proper design followed up with painstaking accuracy and care go into all USS Trackwork. This constant attention to the very finest detail means that you get maximum service from every piece of equipment bearing the USS label. You'll find it pays to specify USS Trackwork.

The 39-foot-long Sampson-type switch points are doubly reinforced, insulated, heat-treated and have special plating. Rail braces are USS TAYLOR* adjustable braces. The Rail Section is USS 14031 (140# A.R.E.A.).

*TAYLOR *is a registered trademark of United States Steel Corporation for its adjustable rail brace.*

The #20 frog is of railbound manganese steel construction —A.R.E.A. 625, with special plating.

USS TRACKWORK

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COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

UNITED STATES STEEL

Current Statistics

Operating revenues, three months	
1957	$2,574,640,178
1956	2,535,561,742
Operating expenses, three months	
1957	$2,022,062,144
1956	1,981,503,801
Taxes, three months	
1957	$271,500,619
1956	269,326,709
Net railway operating income, three months	
1957	$213,857,758
1956	218,900,246
Net income estimated, three months	
1957	$161,000,000
1956	163,000,000
Average price 20 railroad stocks	
June 4, 1957	90.29
June 5, 1956	102.11
Carloadings revenue freight	
Twenty-one weeks, 1957	14,211,010
Twenty-one weeks, 1956	15,066,463
Average daily freight car surplus	
Wk. ended June 1, 1957	23,000
Wk. ended June 2, 1956	12,026
Average daily freight car shortage	
Wk. ended June 1, 1957	847
Wk. ended June 2, 1956	4,983
Freight cars on order	
May 1, 1957	105,190
May 1, 1956	137,436
Freight cars delivered	
Four months, 1957	34,210
Four months, 1956	20,972
Average number railroad employees	
Mid-April 1957	992,593
Mid-April 1956	1,048,965

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Week at a Glance CONTINUED

Will growing fuel demand change RR power? ... p.46

U.S. fuel requirements are growing faster than increases in known reserves—and nuclear power won't fill the gap for years. The fuel availability outlook over the next 30 years is of vital importance to railroads, because it could have a widespread impact on motive power design and fuel costs.

Music is getting a bigger RR play p.47

Providing music on passenger trains has been found to evoke "very favorable" reactions from travelers. The service is not new—it's been used by some railroads since 1950—but the list of trains on which music is available continues to grow. The B&O also "pipes" music into its car service offices.

Should railroads be subsidized? p.52

Railroads should still be able to survive and prosper despite the handicap of not getting the public aid their rivals do. This can be done, however, only if railroads insist that people (including government) who demand a service should pay at least the cost of providing it—and, if such payment is not forthcoming, that the service be withdrawn.

SHORT AND SIGNIFICANT

April's net railway operating income . . .

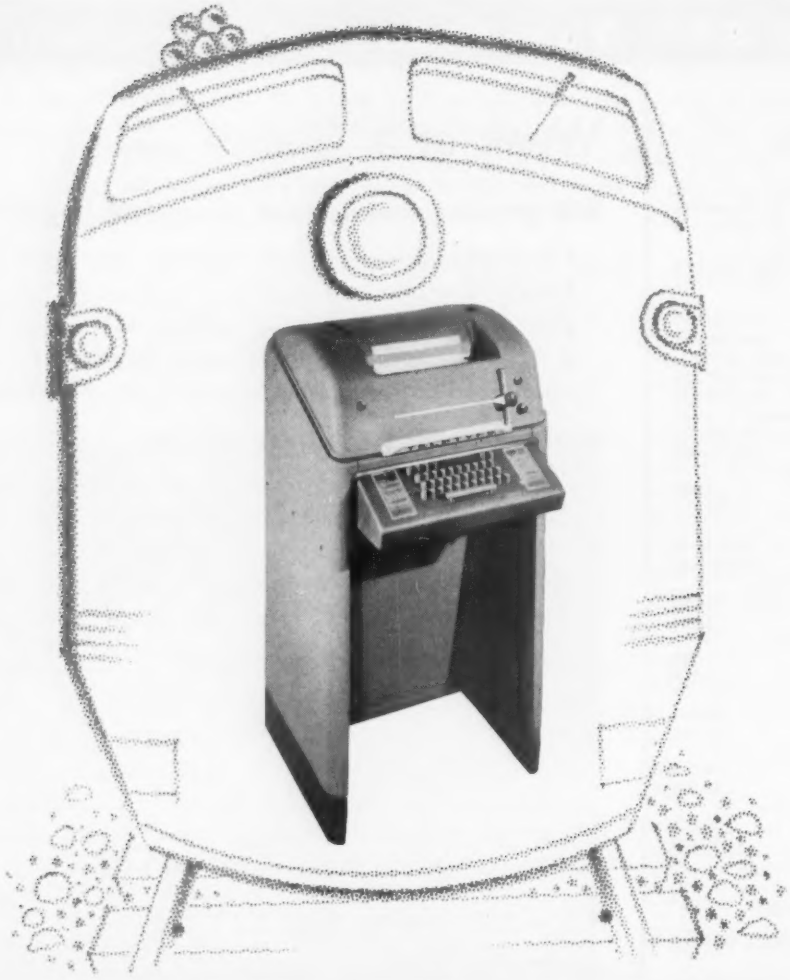
was down $13 million from April 1956—$81 million compared with $94 million. For this year's first four months, the drop was $19 million—$295 million compared with $314 million. Estimated net incomes for the month and four months were $61 million and $221 million, down $13 million and $16 million from last year.

Longest single stretch of CTC . . .

on the entire Pennsylvania system is being installed on 300 miles of the road's Northern region between Rockville, Pa., and Buffalo, N.Y. The main line is now single track at places and double track elsewhere. The project will permit retirement of over 150 miles of track.

C&O's electronic . . .

car location information center was put into service June 3. The center, in preparation for a year (Railway Age, May 13, p. 32), is said to be served by the world's largest railroad Teletype network. It makes available to shippers and receivers, almost instantaneously, the exact location of any car on C&O tracks. This installation will be described in next week's issue.



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1957 Golden Anniversary Year

RAILWAY AGE
The Industry's Newsweekly

Cooperation Is Key to RR Future

Engineers' grand chief and Erie president tell Superintendents' convention that only by working together—management with labor and railroad with railroad—can the industry prosper.

Cooperation is the key to success in a progressive railroad industry.

This theme ran strongly through two major addresses at last week's Chicago convention of the American Association of Railroad Superintendents—one by H. W. Von Willer, president of the Erie, on cooperation among railroads; and the second by Guy L. Brown, grand chief engineer of the Brotherhood of Locomotive Engineers, on cooperation between labor and management.

Mr. Von Willer would focus inter-railroad cooperation on two objectives: (1) To create a product that fits the need of the customer; and (2) To create and maintain "the type of service that fits into the needs of the buyer—with emphasis on dependability."

Marketing research, he said, is the answer to the first problem. He stressed the necessity for research into costs—not average costs, but firm figures on what it costs to handle individual commodities "from the standpoint of out-of-pocket as well as fully distributed costs."

The Erie president also called for studies of competitors' costs, as a measure of rail advantages and disadvantages in today's traffic picture. Research, he said, should be conducted on three levels—individual railroad, territorial and national.

Moving to Point 2—creating service to fit the buyer's needs—Mr. Von Willer strongly advocated a "national" viewpoint in carrying out interline traffic movements. One road may do an excellent job, he commented, but movement of a shipment "will be judged by the whole performance [and] unless connections render the same dependable job, the overall performance is an unsatisfactory one."

Pointing to the railroads' 49% share of inter-city ton-miles today, the Erie chief executive declared that "if we are to push that percentage up, a coordinated, dependable, scheduled service by all railroads is the No. 1 requisite."

The railroad superintendent, he added, is the man closest to this cooperative job—and it is largely his responsibility to "bring about the kind of thinking on his division . . . that will lead to the national result that must be accomplished; namely: shipper satisfaction."

Grand Chief Engineer Brown also had strong words to say on "cooperation"—plus a warning that "unless we achieve better labor-management relations and keep our eyes on a common goal instead of squabbling among ourselves . . . the time is not too far off when we may wake up and find that the railroad industry has committed suicide."

There are great opportunities, he said, for company and union to "sit down at the conference table and talk over our differences."

The brotherhood officer would have these meetings held not only at top levels but also at division level. This, he said, "would save both sides a lot of time later on and oftimes keep minor disputes from becoming big ones. It would also give employees advance knowledge of what is comtemplated, and management would receive information as to objections or problems with which it might be confronted."

If such procedures should be car-

ICC Chairman Joins Pan American Railway Congress

Chairman Owen Clarke (left), of the Interstate Commerce Commission recently became a member of the U.S. National Commission in the Pan American Railway Congress Association. Mr. Clarke succeeded Interstate Commerce Commissioner Anthony F. Arpaia, who had served on the Pan American Commission during his ICC chairmanship. Oath of office is being administered by H. Charles Spruks (right), assistant chief of protocol of the State Department. Looking on is William T. Faricy, chairman of the Pan American commission and president of the AAR.

U.S. Rubber Holds 'Open House' for Transport Men

Twelve hundred officers of railroads, steamship lines, trucking fleets, airlines and forwarding companies were guests of the United States Rubber Company at an "open house" in New York City recently. Visiting the rubber company's exhibit hall in Rockefeller Center are, left to right: Dr. Wallace E. Cake, U.S. Rubber vice-president; Gerald E. Duffy, vice-president of the Santa Fe; and James W. Harley, U.S. Rubber.

ried through at top levels, Mr. Brown added, "I am sure many differences could be straightened out before they reach the point of argumentation."

The brotherhood chief said that "when consolidations are to be effected or when new facilities are built, management could and should confer with employee representatives and give consideration to the ideas and suggestions they offer before final plans are made."

Both the Erie president and the brotherhood leader also took brief looks at two other elements of vital importance in today's railroad industry—regulation and technical advances.

President Von Willer was optimistic. In regulation, he said, "considerable progress is being made in some areas;" the Interstate Commerce Commission is "streamlining its operation." And, he continued, the once-scorned principle of "user charges" is now being "considered, discussed and proposed with considerable light and with lots less heat. More and more, it is being accepted as a fair and equitable principle."

Erie's president cited a half-dozen technological and operating advances benefiting today's roads. But he warned that the industry "must be constantly on the alert to discover opportunities to reduce operating costs without sacrificing service."

BLE Grand Chief Engineer Brown rapped the regulatory system which has resulted in "the American public . . . paying billions more for freight transportation than they should only because obsolete government policies have encouraged inefficient freight carriers and have penalized efficient ones."

"It is on issues such as these," he continued, "that labor-management can get on common ground and present a united front. We all know that anything that affects the railroad industry either directly or indirectly affects railway labor, so now is a good time to reorganize our talents and take an objective view of conditions confronting us."

Mr. Brown viewed technological gains primarily as a new and "even more important responsibility" for the years to come. And, he concluded, the manner in which labor and management meet the challenge of this responsibility "will determine the future of our railroad industry."

New officers of the association are: President, J. A. Craddock, superintendent, Lackawanna, Hoboken, N.J.; first vice-president, R. F. Jeter, superintendent of terminals, GM&O, Chicago; second vice-president, C. C. Robinson, superintendent car service, Monon, Lafayette, Ind.; third vice-president, C. D. Buford, assistant general manager, New York Central, Cleveland; and fourth vice-president, A. J. Cowie, superintendent, Canadian Pacific, Regina, Sask. D. E. Ferner, superintendent transportation, Chicago South Shore & South Bend, Michigan City, Ind., was reelected treasurer.

RRs Want 'Decent Standard of Living'

Freight-rate increases proposed in Ex Parte 206 case are needed, ICC is told, unless a return of only about 4% is to become a regulatory policy.

The Interstate Commerce Commission was advised last week that railroad earnings are "seriously inadequate, unless the commission is now prepared to adopt, as a regulatory policy, the proposition that 4%, or thereabouts, is a fair average rate of return" for the industry.

The advice was part of Edward A. Kaier's argument in support of the freight-rate increases proposed in the Ex Parte 206 case. Mr. Kaier, general attorney of the Pennsylvania, is chief counsel in the case for eastern and western railroads.

He cited evidence of record which shows that "earnings in the neighborhood of 6% are recognized as reasonable" for electric utilities, telephone companies and pipe lines. "It is obvious," he said, that railroads have more risks than those enterprises.

The brief filed by Mr. Kaier and his associate counsel suggested that a return of 8% "would be fair and reasonable under recognized standards applied in the regulation of other industries and justified by the cost of capital to the railroads." The issue before the commission, Mr. Kaier also said, "is whether railroads are to continue to live on the brink of actual financial distress or whether the commission will now recognize their legal and economic right to a decent standard of living."

At issue are pleas for 22% and 15% increases sought, respectively, by eastern and western roads and by southern roads, other than the Southern and Piedmont & Northern. Both raises would include the already-effective interim increases of 7% in the East and 5% in the West and South and interterritorially.

The argument was held in Washington before the entire commission. It got under way June 3 and was expected to go on all of last week.

Counsel representing more than 80 interested parties were allotted time, ranging from five hours for the eastern and western railroads to five minutes for the Producers Grain Corporation. The southern roads had 50 minutes, and their argument was made by Prime F. Osborn, III, general solicitor of the Louisville & Nashville. The National Industrial Traffic League's 1¼-hour argument in opposition to further increases was made by John S. Burchmore and Robert N. Burchmore.

The Kaier plea was based on the railroad's need for "a healthy level of earnings" so they may "improve their service to the public, deal fairly with the owners of the properties and bolster their weakened financial and credit standing."

The PRR general attorney asserted "there can be no question but that the railroads' credit and financial integrity have not been maintained in this period of unprecedented peacetime prosperity," and "the fact that it has not is a matter of serious national concern."

Figures indicating the generally high level of freight traffic were cited by Mr. Kaier to make the point that lack of volume "does not afford an explanation of the railroads' failure to achieve a satisfactory level of earnings during the postwar period." Railroad capital expenditures of that period, he also said, were 27% less than those of the 1925-1930 period—in terms of dollars of constant value. Meanwhile, volume was up 42%.

"The seriousness of this situation, from the standpoint of national interest in adequate and efficient transportation, is evident enough," Mr. Kaier added. "With a much higher volume of traffic, railroads are doing substantially less work in improving their plants and equipment than they did 30 years ago. But the situation is even more serious when it is considered that the rest of the economy—which needs and depends on rail transportation—is making capital expenditures at an unprecedented rate. Their capital expenditures in the past decade have been at a rate over twice that of the railroads."

The NIT League position, as argued by the Burchmores and set out in a 53-page brief, is that it "strongly opposes authorization of further increases advocated to improve the rate of return and largely designed to increase the profits of investors." The league supported the railroad requests for the interim increases which were designed to reflect increases in wages and other costs.

As to the present proposal, which it called "unique," the league takes the position that a "collective fair rate of return is foreign to present law as a standard of rate-making." As spelled out in the brief, this argument continues:

"It was tried in 1920 and abandoned by enactment of the present rule of rate making in 1933. The constitutional prohibitions against confiscatory rates, whether stated as a fair return on fair value, or as the end result of meeting fair revenue requirements, applies only to individual companies. . . The constitution does not guarantee a fair return on fair value even to individuals, and the law recognizes that some roads never would make a fair return under any level of rates."

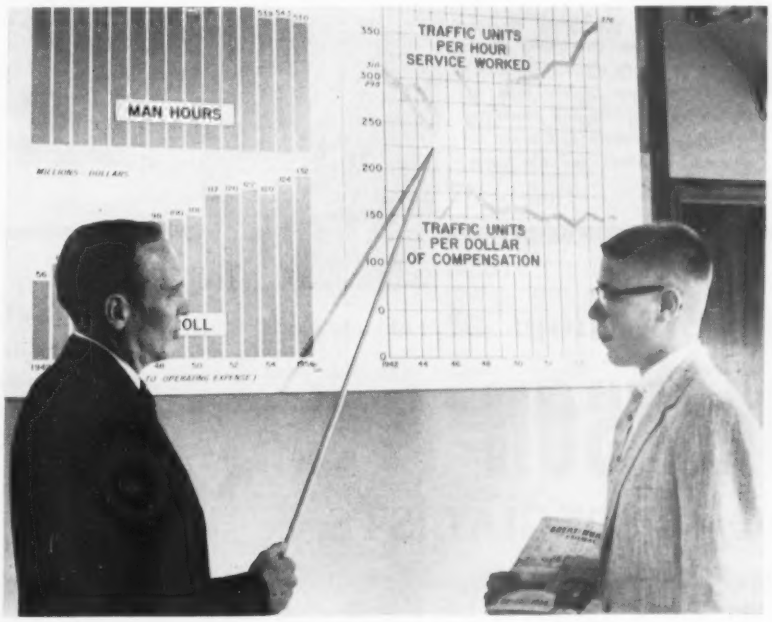
The league went on to say that, in any event, the rate base "is subject to fundamental question, with much of the existing railroad plant being obsolete." It also complained that the carriers offered "only the most perfunctory evidence as to the effect of the rates on the movement of traffic, and none at all as to their experience and program for reducing expenses per unit of traffic."

"What is needed," the league also said, "is not a general increase in rates, but a revamping of an outmoded rate structure with selective increases and reductions, while at the same time pursuing throughout the industry the measures that will increase efficiency and put railroads in a position where they are really able to compete."

'Temporary' Rights Can Last More Than 180 Days

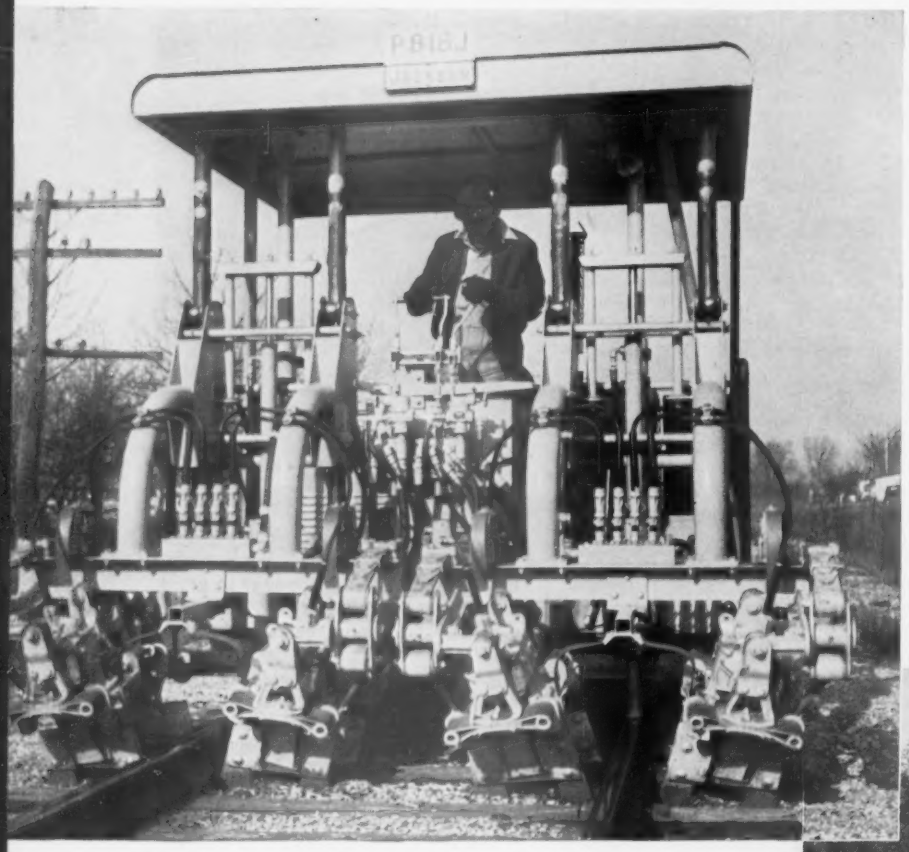
The United States Supreme Court has ruled that the Interstate Commerce Commission has power to grant temporary operating rights to water carriers and motor carriers for periods of more than 180 days.

The courts thus upheld the commission, reversing a lower court which ruled that 180 days was the limit. Meanwhile, the commission's latest annual report recommends legislation which would make it clear that it has authority to grant temporary rights *(Continued on page 14)*



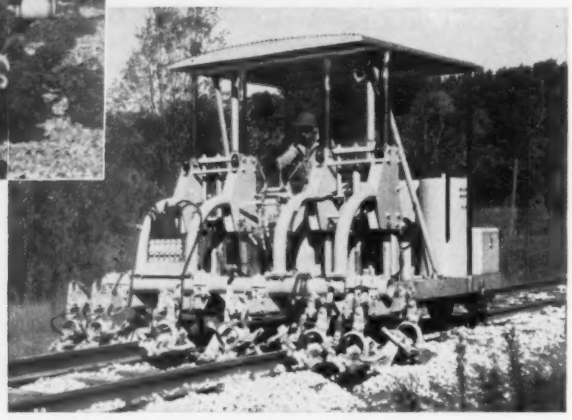
GN President Explains for the 'Boss'

Fourteen-year-old Fred Fishman (right), youngest stockholder ever to attend a Great Northern annual meeting, said after the recent meeting that he "couldn't think of any good questions to ask." Nevertheless, the youthful owner of two GN shares later met and talked with the road's president, John M. Budd, shown explaining a chart to the boy.



THE JACKSON TRACK MAINTAINER — unmatched for both putting up and maintaining track of finest quality in an unlimited range of conditions.

THE NEW JACKSON MULTIPLE, relatively inexpensive on-track tamper that's unrivalled for low cost and uniformly fine tamping in all operations involving medium to high lifts or any lift equal to, or greater than largest ballast used.



JACKSON MANUALLY GUIDED TIE TAMPERS. These machines and the power plants from which they are operated, are exceedingly efficient, widely used by small gangs in low lifts and smoothing work, cross-overs and spots the on-track machines can not reach.

From the shops of

JACKSON

tamping SPECIALISTS, comes the best answer to EVERY TAMPING REQUIREMENT!

The very high regard in which Jackson Tampers are universally held is the result of our many years of specialization in the manufacture of this type of equipment . . . over 35 years of continuous and intensive study of the tamping needs of railways throughout the nation and the devotion of all our energies to the production of tampers which do the job better, faster and more economically. Isn't it logical that the best answer to YOUR tamping requirements should be found here? It sure is, and we're confident we can prove it to your entire satisfaction! We'll welcome the opportunity of conferring with you on any tamping problem.

JACKSON VIBRATORS, INC. • LUDINGTON, MICHIGAN

MARKET OUTLOOK THIS WEEK

Week's Loadings 6.6% Below Last Year's

Loadings of revenue freight in the week ended June 1 totaled 671,785 cars, the Association of American Railroads announced on June 6. This was a decrease of 51,118 cars, or 7.1%, compared with the previous week; a decrease of 47,424 cars, or 6.6%, compared with the corresponding week last year; and a decrease of 37,566 cars, or 5.3%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended May 25 totaled 722,903 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, May 25

District	1957	1956	1955
Eastern	113,305	123,701	128,784
Allegheny	143,101	158,032	154,645
Pocahontas	64,717	65,501	62,210
Southern	120,665	132,466	125,750
Northwestern	119,768	127,421	130,394
Central Western	109,539	121,961	126,099
Southwestern	51,808	59,172	57,707
Total Western Districts	281,115	308,554	314,200
Total All Roads	722,903	788,254	785,589
Commodities:			
Grain and grain products	47,953	51,026	50,068
Livestock	5,150	6,138	6,014
Coal	132,423	140,119	129,430
Coke	11,023	13,031	12,187
Forest Products	40,367	48,220	44,872
Ore	87,849	84,275	83,928
Merchandise l.c.l.	55,084	60,177	66,146
Miscellaneous	343,054	385,268	392,944
May 25	722,903	788,254	785,589
May 18	722,521	778,997	769,879
May 11	723,392	777,606	752,645
May 4	718,924	770,558	736,904
April 27	690,789	779,977	725,900
Cumulative total, 21 weeks	14,211,010	15,066,463	14,118,580

IN CANADA.—Carloadings for the seven-day period ended May 21 totaled 72,907 cars, compared with 81,883 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
May 21, 1957	72,907	32,000
May 21, 1956	77,562	29,662
Cumulative Totals:		
May 21, 1957	1,454,903	664,424
May 21, 1956	1,558,555	698,066

New Equipment

FREIGHT-TRAIN CARS

► *Alaska.*—Ordered 50 70-ton triple hopper cars, General American; cost $486,824; delivery will be at daily rate of 10, beginning early in second quarter of 1958.

► *Repair Ratio Slightly Higher.*—With freight cars owned by Class I railroads totaling 1,724,401 on May 1, 1957, and with 75,317 cars awaiting repairs, the repair ratio was .3% higher on that date, compared with a year ago.

	May 1 '57	May 1 '56	Change
Ownership	1,724,401	1,699,379	+ 25,022
Waiting repairs	75,317	69,512	+ 5,805
Repair Ratio	4.4%	4.1%	+ .3%

SPECIAL

► *Canadian National.*—Ordered 49 steam generator cars, Canadian Car Company; cars, to be delivered around year end, will be equipped with two steam generating units, a diesel-generator set, water tanks with total capacity of 3,000 gal., and 500-gal. fuel tanks.

► *India.*—This country's Ministry of Railways invites bids, according to Foreign Commerce Weekly, for following materials: Rails, 200,000 tons; fishplates, 10,000 tons; steel trough ties, 125,000 tons; steel turnout ties, 30,000 tons; bearing plates, 10,000 tons; pig iron for cast-iron ties, 125,000 tons; mild steel sheets and plates, 60,000 tons; specifications and bidding conditions are available from Director, India Supply Mission, 2536 Massachusetts avenue, N.W., Washington, D.C.

LOCOMOTIVES

► *Diesel Fleet Still Growing.*—There were 26,622 diesel units on Class I roads on May 1, 1957, an increase of 104 since April 1 and 1,221 since May 1, 1956; steam fleet was down to 3,315 units, according to AAR report summarized below.

	Owned or Leased May 1		Stored Serviceable May 1		Waiting Shops May 1	
	1957	1956	1957	1956	1957	1956
Diesel (Units)	26,622	25,401	68	14	1,026	953
Steam (Locomotives)	3,315	5,203	872	832	580	825
Electric (Units)	612	629	10	9	85	73

New Facilities

► *Baltimore & Ohio.*—Ordered equipment from General Railway Signal Company for two classification yard installations at Cumberland, Md., one in the 40-track eastbound yard, second in the 32-track westbound yard; installations include automatic route selection and automatic radar and analog computer type retarder control; self-resetting dragging equipment detector will be installed in approach to the hump, and impulse track circuits will be used for maximum shunting sensitivity.

NYC Brochures Spur Travel in the Empire State

Helen Loring (right), chief hostess aboard New York Central's "Empire State Express," helps "Empire Girl" Margaret Berry with an armful of new travel folders recently distributed aboard the road's commuter trains. The brochure—part of an intensive sales drive to promote rail coach travel in New York State—also has been distributed by direct mail and house-to-house messenger in nine key communities throughout the state.

(Continued from page 11)
for periods of more than 180 days. Bills proposing such legislation are pending in Congress.

Involved in the court proceedings were temporary rights under which Pan-Atlantic Steamship Corporation has been operating since May 1955. The proceedings were brought by seven railroads, and the commission's appeal to the Supreme Court was docketed there as No. 424, ICC v. Atlantic Coast Line, et al. The court's decision also disposed of Pan-Atlantic's like appeal, which was docketed as No. 408.

It was a 6-to-3 decision, the majority opinion having been announced by Justice Douglas. Justice Burton wrote a dissenting opinion in which Justices Harlan and Whittaker joined.

The court held in effect that general provisions of the Administrative Procedure Act override specific provisions of the Interstate Commerce Act's Part III, which is the Water Carrier Act. (A like temporary-rights provision is in Part II, the Motor Carrier Act.)

The Part III provision involved is Section 311 (a), which gives the commission power to grant temporary operating authorities to water carriers, but stipulates that such temporary authority "shall be valid for such time as the commission shall specify, but not more than an aggregate of 180 days."

The Administrative Procedure Act provision which the court made an overrider is Section 9(b). It provides that in any case in which a "licensee" has, in accordance with rules of an administrative agency, made "timely and sufficient application for a renewal or a new license, no license with reference to any activity of a continuing nature shall expire until such application shall have been finally determined by the agency."

The court noted that Pan-Atlantic is an applicant for authority to continue the involved operations on a permanent basis. It noted also that "license" as used in the Administrative Procedure Act includes certificates and permits. The court then added:

"A temporary authority granted under Section 311(a) of the Interstate Commerce Act would seem to be a 'permit' or 'certificate' under the Administrative Procedure Act. 'Licensee,' as used in Section 9(b) would seem, therefore, to include one who holds a temporary permit under Section 311(a). It is argued that 'license' in that section includes only those that are permanent. But we see no justification for that narrow reading. A permit for 180 days covers an 'activity of a continuing nature'. . .

"Initially, the commission can do no more than issue temporary authority good for 180 days. But once the conditions of Section 9(b) are satisfied, an extension in the interests of economy and efficiency is authorized. . . We conclude that an harmonious reading of Section 311 (a) and Section 9(b) requires the latter to be read as supplementing the former."

RRs Asked to Increase 'Plug Door' Car Supply

Railroads have been urged to increase their supply of "plug door" box cars to meet the needs of the retail lumber and building materials industry.

The National Retail Lumber Dealers Association, at its semiannual meeting in Washington, D. C., recommended to all railroads that "future box car replacements and additions be of the 'plug door' type and that railroads continue their efforts to provide even better box cars for shipping lumber and other long commodities."

"We feel that railroads can regain revenue lost to other forms of transportation if they will provide the necessary wide-door box cars," said Robert B. Brown, the association's materials handling director.

RPI Governing Board Holds Semiannual Meeting

The governing board of the railway supply organization — Railway Progress Institute—held its semiannual meeting June 5 in the Duquesne Club, Pittsburgh. RPI Chairman R. A. Williams presided.

The membership committee, of which Charles Heater (American Steel Foundries), is chairman, reported that present membership in the institute totaled 97 companies. Other reports were presented by the chairman of the passenger research committee (George L. Green, Pullman-Standard), the committee on emergency planning (C. E. Grigsby, American Steel Foundries), the legislative committee (A. H. Smith, Kerite), the executive development committee (R. M. Coultas,

General Electric), and the freight car supply and financing committee (Herman Altschul, General American).

The institute's 1957 annual dinner will be held November 21 at the Conrad Hilton Hotel, Chicago. The 1958 dinner will be at the Hotel Commodore, New York.

Pay-by-Mail Plan for NYC Commuters Begins Sept. 1

A purchase-by-mail plan for commuter tickets will become effective on the New York Central next September 1. The plan, says James E. Hawthorne, NYC assistant vice-president, passenger sales, is based on the results of a recent survey which indicated that a majority of the railroad's commuters want to receive their commutation tickets regularly by mail.

The plan, called "Chek-It," was announced in a special folder distributed on all NYC commuter trains on June 3.

Under the "Chek-It" service, the commuter indicates, on a special reply form on the folder, the type of commutation ticket he wants. The Central will mail the ticket to the commuter's home on the 26th of each month. Payment can be made to the railroad by mail.

Last NP 'Yellowstone' Steamers Are Scrapped

The last of the Northern Pacific's 12 Z-5 "Yellowstone" steam locomotives has gone to the scrap heap. The massive articulateds—largest in the world when they were built in 1929-30—were first used on NP's Yellowstone Division, later were reassigned to helper service out of Livingston and Helena, Mont. Alco built the first Z-5 in 1929; Baldwin constructed the remaining 11 in 1930.

24 Railroads Paid May Fines Totaling $9,700

Twenty-four railroads in May paid fines totaling $9,700, plus costs, on 97 counts involving violations of the Safety Appliance and Hours of Service acts.

This was reported by the Interstate Commerce Commission which also said that the largest amount, $3,500 and costs, was paid by the New York Central for 35 violations of the Safety Appliance Acts. Next came payments totaling $1,200 and costs by the Pennsylvania for 12 violations of the Safety Appliance Acts.

Wide World photograph

FLOOD WATERS of the Washita river washed out this Santa Fe bridge on June 2 about 10 miles southeast of Sulphur, Okla. Nine cars of a 70-car Santa Fe northbound freight train were left, with the locomotive, on the north side of the river, and about 30 cars were stranded on the south bank. Some 20 cars plunged into the river. No one was injured.

Flood Damage Mounts in Southwest

Railroads in Texas and Oklahoma worked last week to repair damage wrought by another siege of thundershower activity. The Santa Fe suffered perhaps the hardest blow of the week when its bridge between Dougherty, Okla., and Gene Autry was washed out by flood waters of the rain-swollen Washita river on June 2.

When asked what action would be taken to restore service over the river, a Santa Fe spokesman at Chicago said no definite plans had yet been made, pending further investigation at the site. He concluded: "We're sending enough material down there so they can build damn near anything."

Meanwhile, Santa Fe traffic south of Oklahoma City was being routed via Rock Island lines. Elsewhere, the Santa Fe reports it has lost "several" pile trestles on branch lines and has suffered "quite a few" track washouts.

The Frisco said that at Lakeside, Okla., on the banks of Lake Texoma, it had deposited some 50 cars of "one-man boulders" along the shore to combat wave action on the lake. The Burlington reported a gratifying lack of flood damage over the past week. The only reported mishap was on the Ft. Worth & Denver's South Plains line between Estelline, Tex., and Sterly, where the road's bridge over the Pease river was "partially out." Damage was said to be slight and the line was back in service in a relatively short time.

On June 2 an embargo notice filed by the Quanah, Acme & Pacific advised that delays were to be encountered at various points along its line. It was reported that nineteen spans of the road's bridges across the Red river at Quanah, Tex., were washed out.

Entering the sixth consecutive week of flood conditions, the M-K-T reported: "Situation about same." The road said it was detouring its Osage-Oklahoma City line because of "trouble" at the jointly used Santa Fe bridge across the Cimarron river near Yale, Okla.

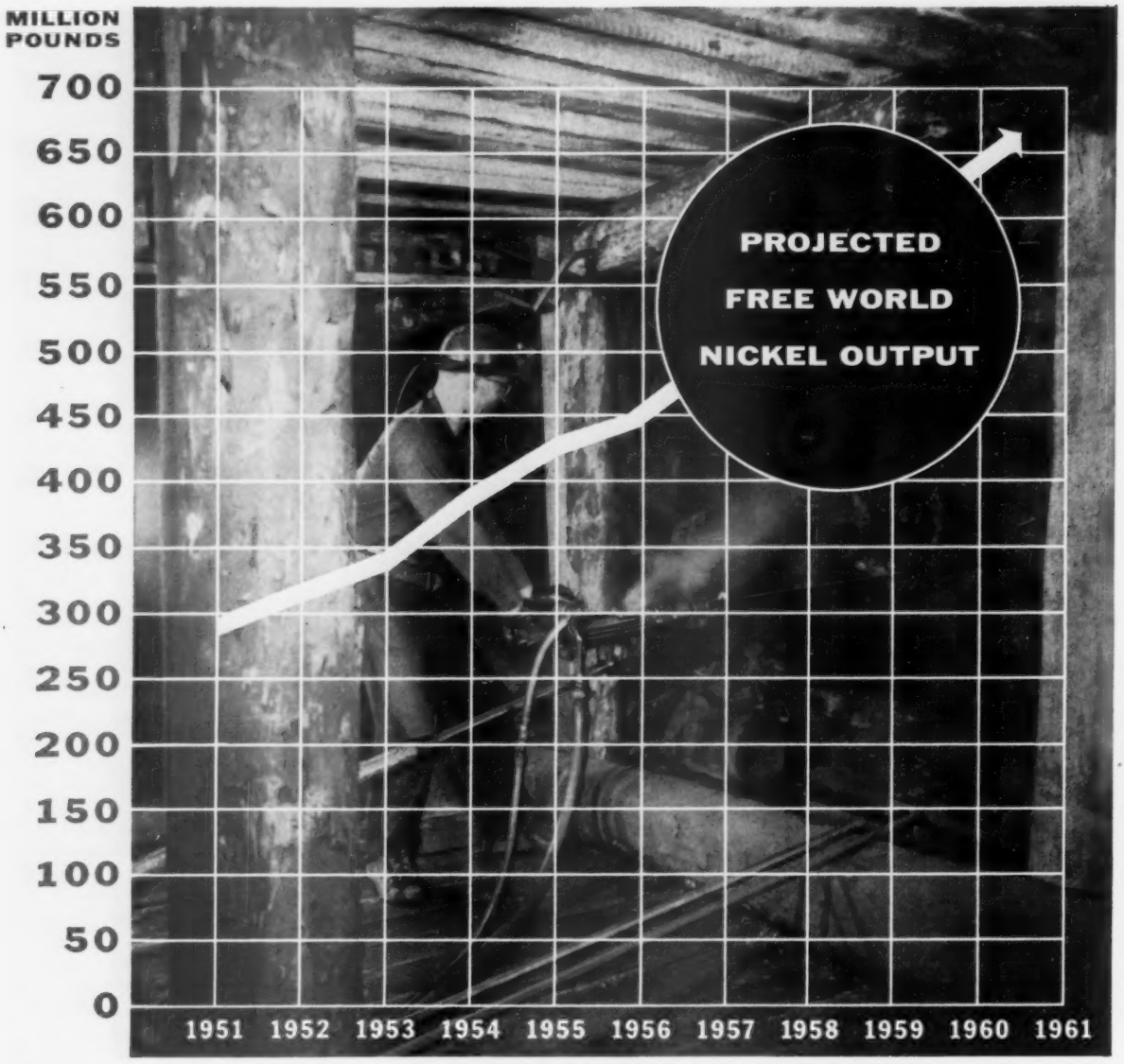
As this issue went to press, the Katy's service north of Wichita Falls, Tex., at the Red river, was interrupted because of high water. Officers expected the line to be open, however, within 48 hours.

The Cotton Belt reported that its trestle and portions of roadway near Lavon, Tex., were "partially washed out." This occurred when the U.S. Corps of Engineers opened the flood gates at Lavon dam northeast of Dallas. Trains were detoured around the region for several days. On June 4 the road advised: "Normal operations now resumed."

Turboprop May Pose New Threat to Rail Traffic

Another threat to rail freight traffic—a 380-mph turboprop freight aircraft with a payload capacity of 70,000 lb—may be off the drawing boards and into the air by early 1960. Douglas Aircraft Company, reportedly working on such a plane, declined comment on details, but admitted that a survey of airlines is underway to determine demand for a turbine-powered plane other than the Jet DC-8.

Reports indicated that the turboprop—tentatively labeled the DC-10—



Another 50% advance in nickel industry's production capacity

Paced by Inco-Canada's new developments in Manitoba, producers put 1961 Free World nickel output at 650-675 million pounds a year—up 130% over 1951

In 1951, the nickel industry of the *Free World* produced about 290 million pounds of nickel.

Last year, the over-all output of the industry set a new record high of 450 million pounds.

This was an expansion of more than 50% in five years: a substantial production boost that indeed benefited industry, but only after vital defense and government stockpile needs were given preference.

New Inco-Canada developments help set new goals

Right now Inco-Canada, with years of exploration behind the project, is pushing construction at its new Manitoba mines: developing in the far North a new, big-tonnage nickel-producing area.

In Ontario, at the same time, Inco-Canada is continuing to expand its Sudbury capacity.

In 1961, this should lift Inco-Canada's nickel output to 385 million pounds a year. A hundred million more than in 1956!

With the steadily increasing capacity of all *Free World* producers, in the next four years nickel production should be lifted to the all-time high of 650-675 million pounds a year.

With 1961 capacity anticipated at more than twice what it was in 1951—and with continuing exploration—nickel users are assured of more nickel in their future.

The International Nickel Company, Inc., New York 5, N.Y.

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INCO **International Nickel**

The International Nickel Company, Inc., is the U. S. affiliate of The International Nickel Company of Canada, Limited (Inco-Canada)—producer of Inco Nickel, Copper, Cobalt, Iron Ore, Tellurium, Selenium and Platinum, Palladium and Other Precious Metals

might cut direct operating costs for air freight to 4 or 5 cents a ton-mile, compared to 6 to 9 cents with present equipment. Such cost reductions might permit air freight rates of 12 cents a ton-mile.

UP Will Modernize Two Terminals

A major freight terminal at each end of the Union Pacific is getting its face lifted. In the next two years, Albina, Ore., will get an entirely new terminal to serve the Portland area, and Kansas City, Kan., will, within three years, have a modern yard, a new freight house, and a new diesel servicing building.

The Albina project, already under way, will provide new and modernized facilities to coordinate at one location all freight handling and servicing facilities in the Portland area.

The yard will be rearranged by building 68,000 ft of new track and relocating 151,000 ft of present trackage. When finished, it will consist of 53 tracks, including six capable of holding 140 cars each.

A 1,000-ft freight car repair shed will be constructed over three repair tracks. A materials storage building, two track scales, a yardmaster's office with four-story observation tower and telegraph facilities, and another smaller yardmaster's office, are included in the project.

The yard will be lighted from 10 steel towers. New compressed air and oil facilities are included in the planning.

Contemplated at Albina are a new diesel servicing shop and a large freight house.

Major features of the Kansas City project will be a modern five-track freight house and a diesel servicing building. Facilities for servicing steam locomotives will be removed to make room for the new construction.

The freight station will be a steel building, 946 ft by 167 ft, with concrete platforms at car-floor and truck-bed level. Part of the project will be mechanized freight handling equipment, including a "tow-veyor" system.

The 260 ft by 138 ft diesel building will be similar to one recently put into service by the UP at Council Bluffs, Ia. To be built of steel, concrete and glass block, it will be capable of servicing 16 units on four tracks with fuel, water, sand and lubricating oil.

Also included in the overall project will be a two-story office building, a 250-ft outside platform with a 40-ton crane for handling heavy loads from open-top cars, a complete storeroom, two wash and locker rooms, a turntable for turning diesel units, a 250-ft outside diesel inspection pit, and storage and handling facilities for locomotive supplies.

RRs Start Travel 'Commission' Program

Eighteen North American railroads last week launched a year-long experiment in developing passenger traffic—the paying of 5% commissions on point-to-point travel to travel agents and tour operators recognized by the Rail Travel Promotion Agency.

The commission will be available on tickets sold for trips between some 43 specified cities, from Boston, Mass., and Worcester to Los Angeles, San Francisco and Portland, Ore.; from Minneapolis and St. Paul to Fort Worth, Dallas and Houston.

The program has been labeled experimental—and the RTPA indicated that participating railroads will keep close tabs on the results to determine if the project deserves continuation or expansion.

Roads participating in the program include: Baltimore & Ohio; Boston & Albany; Canadian National; Canadian Pacific; Central Vermont; Chesapeake & Ohio; Chicago, Milwaukee, St. Paul & Pacific (between St. Paul-Minneapolis and Seattle-Tacoma); Duluth, Winnipeg & Pacific; Denver & Rio Grande Western; Grand Trunk Western; Great Northern; New York Central; New York, Chicago & St. Louis; Northern Pacific; Soo Line; Spokane, Portland & Seattle; Toronto, Hamilton & Buffalo; and Western Pacific.

ICC Check Found 89.9% Of Trucks With Defects

The first 1957 road check conducted by the Bureau of Motor Carriers of the Interstate Commerce Commission turned up vehicle defects or driver deficiencies on 89.9% of the trucks inspected.

The check was conducted during the week beginning May 6 at 150 points throughout the country. It was confined to interstate trucks, and 11,140 vehicles and drivers were checked.

The 89.9% found with defects or deficiencies was within one percentage point of showings made in the three 1956 checks which were conducted in May, August and October.

The principal violation reported by the bureau was in the vehicles' braking systems which were found with 6,171 defects. This was followed by deficiencies in driver logs, medical certificates and lighting defects. More than 1,100 of the inspected vehicles, about 10% of the total, were ordered out of service for being so immediately hazardous as to be likely to cause an accident or breakdown.

March Accidents

The ICC has made public its Bureau of Transport Economics and Statistics' preliminary summary of railroad accidents for March and this year's first three months. The compilation, subject to revision, follows:

Item	Month of Mar. 1957	3 months ended with Mar. 1957
Number of train accidents*	339	1,048
Number of accidents resulting in casualties	32	112
Number of casualties in train, train-service and nontrain accidents:		
Trespassers:		
Killed	56	154
Injured	43	105
Passengers on trains:		
(a) In train accidents*		
Killed	—	—
Injured	2	45
(b) In train-service accidents		
Killed	2	4
Injured	112	354
Employees on duty:		
Killed	6	43
Injured	1,071	3,276
All other nontrespassers:**		
Killed	99	342
Injured	387	1,355
Total—All classes of persons:		
Killed	163	543
Injured	1,615	5,135

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of more than $750 to railroad property in 1957. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:		
Killed	102	349
Injured	332	1,137

C&NW Starts Common-Carrier Piggyback

The Chicago & North Western will take its first nibble at common-carrier piggyback operations this month with a new overnight service between Chicago-Milwaukee and Eau Claire-St. Paul-Minneapolis. The service is tentatively slated to start June 17.

Operations will be carried out under an agreement between the railroad and the Illinois-Minnesota Conference of common-carrier truck operators, an organization including almost all common-carrier truck lines in business between the two states. C&NW will schedule a new train between Chicago and the Twin Cities, via Milwaukee, to handle the new traffic.

(Continued on page 34)

Questions and Answers

Of current interest

to the Transportation Department

Are non-revenue dump cars, used by an industry to load fill material for a railroad, subject to demurrage . . .

?

No. Demurrage tariff does not apply.

A railroad, needing material for a fill, delivered its non-revenue dump cars to an industry. The industry loaded the cars with its waste material.

As each car was loaded, the manufacturer's locomotive delivered it to the railroad's interchange track. No billing was issued for these movements and no freight or switching charges were assessed. Should these cars be exempt from demurrage while in possession of the industry?

Yes, these cars are exempt from demurrage. The demurrage tariff does not apply to such a movement.—*Demurrage Committee, Eastern Association of Car Service Officers.*

Why is the cost of handling LCL freight so high? Can anything be done about it . . .

?

Yes. Eliminate intermediate checking.

Probably no one knows better than the freight agent how costly is the handling of less-than-carload freight. The agents have seen what these high costs are doing to railroad rates. They have seen these rates as responsible, in part, for diverting this traffic to the trucks. No group of railroaders has been more vociferous in saying that the carriers need this traffic. Here, from the Freight Agents' Association of Kansas City, Mo., is a proposal to decrease the cost of handling LCL. The proposal was made in a paper presented at the recent meeting of the AAR Freight Station Section. *G. C. R.*

"One of the factors that contributes to the high cost of handling less-carload freight is the multiple checking given to shipments moving through one or more transfer points. The freight must be checked when a receipt is given a shipper or connecting line, and again when the shipment is released to the consignee or a connecting line. Any intermediate checking adds to the cost and slows the operation.

"Possibly these intermediate checks could be eliminated by establishing a universal block system over an entire railroad. Each section of a railroad would be given a subblock loading on a transfer point, which also would be given a block number.

"The original forwarding agent would block the shipment. For example— *229* might indicate '2' for transfer point and '29' for the destination subblock. Each piece of freight would be chalked or tagged *229* and from that point freight would be handled by freighthouse labor according to the chalk marks or tags. No further checking would be necessary until the shipment reached destination. When the shipment arrived at transfer point '2' it would be loaded in car '29.'

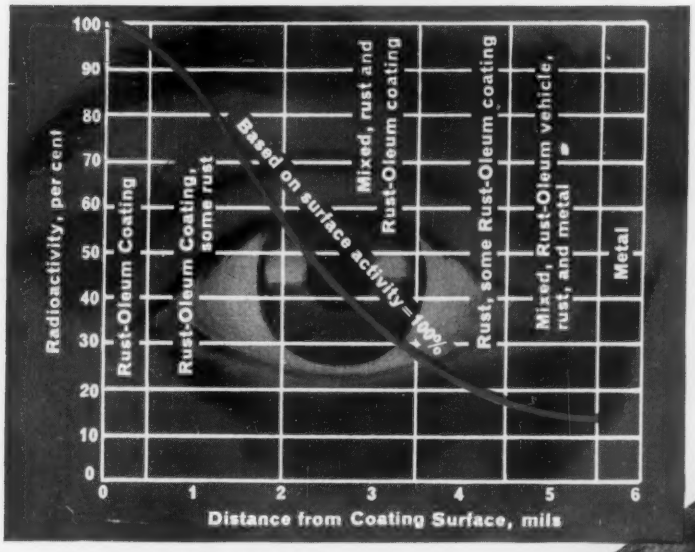
"Much of the marking or tagging could be overcome, particularly on volume freight moving through one transfer point, by using baskets for loading small and fragile packages, thus contributing to the claim prevention program as well. In other instances, dividers, bulkheads or other loading practices could be utilized to accomplish the purpose."

I wish I could have been present to hear the discussion (if any) of this paper. It certainly advocates a significant departure from present practices. I can imagine that a lot of people would object. The bases of their objections might be several. Certainly one would seem to be that such a practice would make tracing difficult. "Shorts" might be difficult to find. Of course if the practice of unitizing, as advocated by the Kansas City agents, were followed widely it might be that many of these objections could be removed.

Anyhow. I'll welcome comments from anyone, and especially from any persons who took part in—or heard—the discussion this subject may have elicited at the freight agents' meeting.—*G. C. R.*

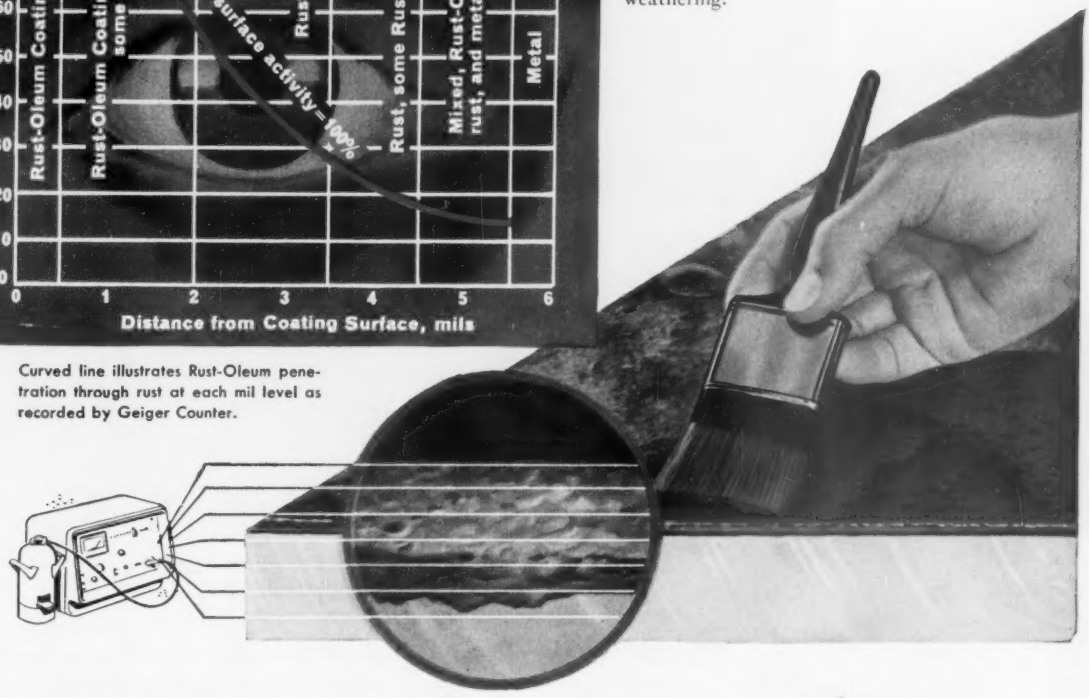
CONDUCTED by G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

See Rust-Oleum *penetrate rust* to bare metal through the "Eyes" of Radioactivity!



Curved line illustrates Rust-Oleum penetration through rust at each mil level as recorded by Geiger Counter.

Rust-Oleum dries to a firm, decorative coating that resists salt water, sun, fumes, heat, humidity, and weathering.



Geiger Counter traces Rust-Oleum penetration to bare metal! In nearly three years of radioactive research, Rust-Oleum's *specially-processed* fish oil vehicle was radio-activated and formulated into Rust-Oleum 769 Damp-Proof Red Primer – then applied to rusted test panels. Rust-Oleum's specially-processed fish oil vehicle was then traced through the rust to bare metal by Geiger Counter.

This penetration means rust-stopping power, because the fish oil vehicle works its way into the tiny pits in the metal where it drives out air and moisture that cause rust. Important savings are yours, because Rust-Oleum can be applied directly over sound rusted surfaces – usually eliminating costly surface preparations. Attach coupon to your business letterhead for your copy of the thirty-page report entitled, "The Development of a Method To Determine The Degree of Penetration of a Rust-Oleum Fish-Oil-Based Coating Into Rust On Steel Specimens," prepared by Battelle Memorial Institute technologists.

There is only one Rust-Oleum. It is distinctive as your own fingerprint.

RUST-OLEUM®

STOPS RUST!

ATTACH TO YOUR LETTERHEAD—MAIL TODAY!

Rust-Oleum Corporation
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- ☐ Complete literature with color charts.
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SPENO

BALLAST CLEANING and RAIL GRINDING SERVICE

The exclusive SPENO Method of Ballast Cleaning and the SPENO Rail Grinding Train have proved themselves to be time, cost, and maintenance savers for our contractual clients.

You may contract for one or both of these services—secure that you have joined company with many other outstanding and forward looking railroads.

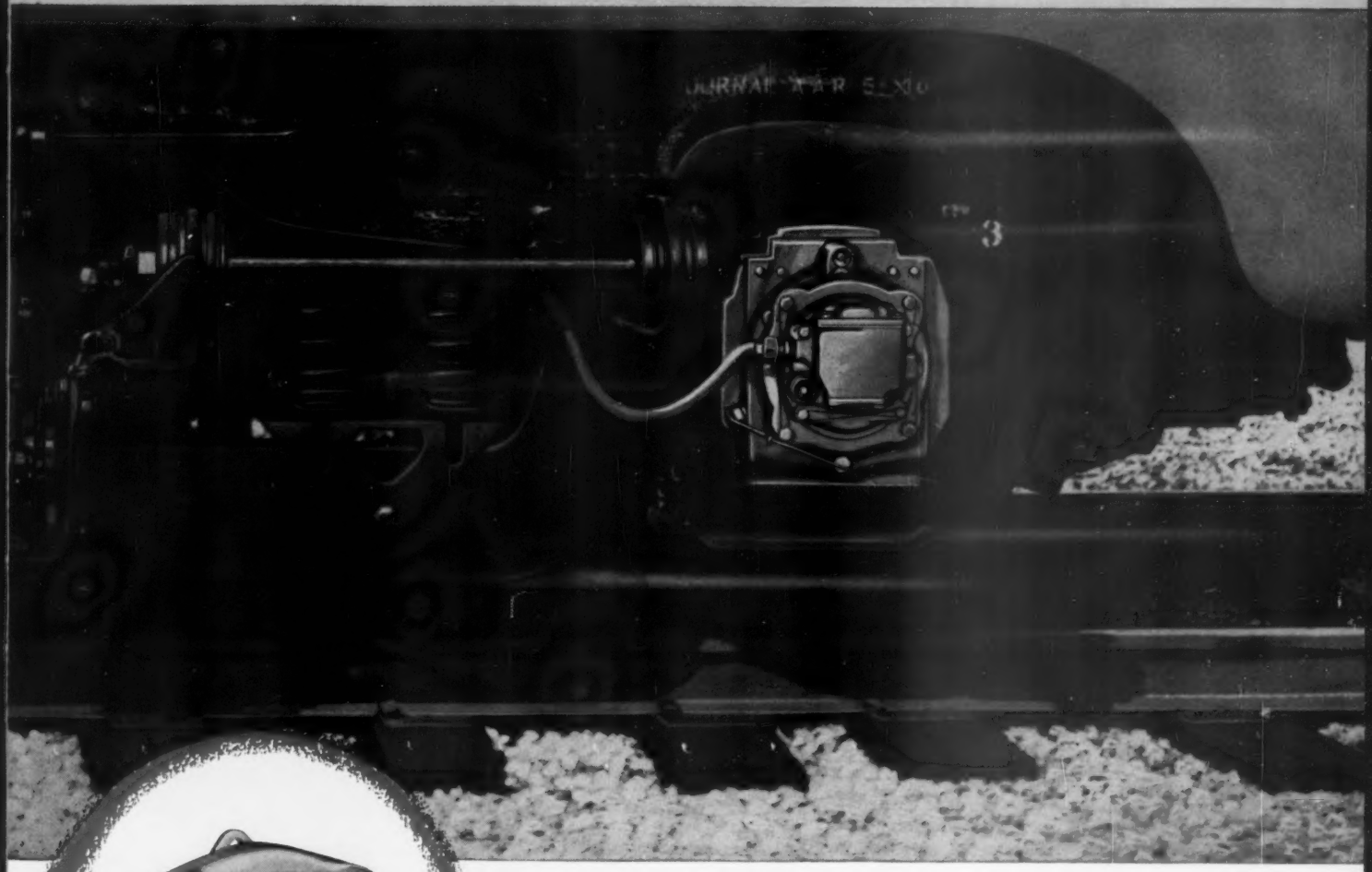
Write today for future availabilities of equipment.

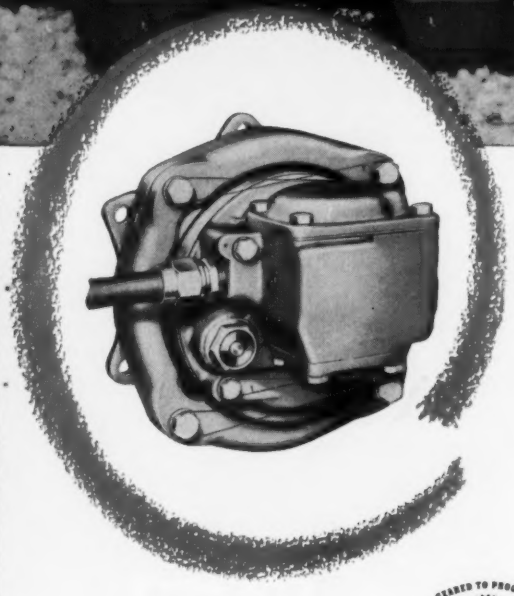
GEARED TO PROGRESS — P R I — MEMBER

Just Ask the Railroads That have used us!

FRANK SPENO RAILROAD BALLAST CLEANING CO., INC.
306 North Cayuga St., Ithaca, N. Y.

What's the difference between a SLIP and a SLIDE?





THE DIFFERENCE can easily mean a car out of service and a costly wheel-turning job.

The Westinghouse AP Decelostat® Controller relieves braking pressure the instant wheel slip *starts*—the slip is arrested *before it can develop into a slide* . . . and you save the delays and the cost which would otherwise result.

GEARED TO PROGRESS
RAIL MEMBER

Westinghouse Air Brake
COMPANY
AIR BRAKE DIVISION WILMERDING, PENNA.

RAILWAY AGE
The Industry's Newsweekly

WHAT'S NEWS in Products

New Permanent Dunnage

. . . features flexibility

The "Tri-Belt" loading system is a new type permanent dunnage for freight cars. Two types of "Tri-Belt" systems are available: (1) a permanent installation of horizontal steel side rails, welded in position between wood wall members and flush with the wall surface; (2) an adjustable installation with removable side rails which fit into T-slots on vertical channels. The channels are fixed in position during car construction.

The manufacturer claims the adjustable system is offered as a solution to many "special car problems," because side rails can be removed, stored and the car used for bulk loading. One man can easily handle and position a section of side rail. Rails can be removed by lifting the latches up and out in one motion.

Side rails can be extended through the doorway and removed from either inside or outside the car.

"Tri-Belt" cross members can be rotated in 90 degree increments about their axis to get increased holding strength in the desired direction. The manufacturer claims this ability to shift the holding strength of the cross members means fewer members are needed to hold the load. The fittings on the cross members are slightly off-center so they can be rotated and re-positioned for closer nesting. *Sparton Corporation, Tri-Belt Division, Jackson, Mich.* ●

Portable Saw

. . . has new front assembly

A new version of the Wright Power Saw, the Wright Rebel has had a year of field testing in various parts of the United States and Canada. One of the biggest changes is in the front assembly which was redesigned to permit this gasoline-powered reciprocating saw to operate at top efficiency even under sandy soil conditions. The governor assembly has been redesigned to provide smoother and more efficient operation. The front housing has been completely sealed to prevent entry of foreign matter into the engine. The governor end of the crankshaft is chrome plated for longer wear. A new air-filter assembly protects the filter

from the elements and is designed to keep out sand and sawdust.

A new magneto assembly has cooling fins cast into the flywheel to provide more cooling area and better cooling for the firing cylinder. The magneto also has larger diameter breaker points and is moisture resistant.

The saw has an all-position carburetor to make it possible to saw at any angle. The new design also includes addition of a leg to the air-shroud base for better stability and added clearance to make the governor pin more accessible for replacement. The saw blade has been lengthened to 20 in, and the unit now weighs less than 25 lb. *Wright Saw Division, Thomas Industries, Inc., Dept. RA, Louisville, Ky.* ●

A-C, D-C Welders

. . . take various electrodes

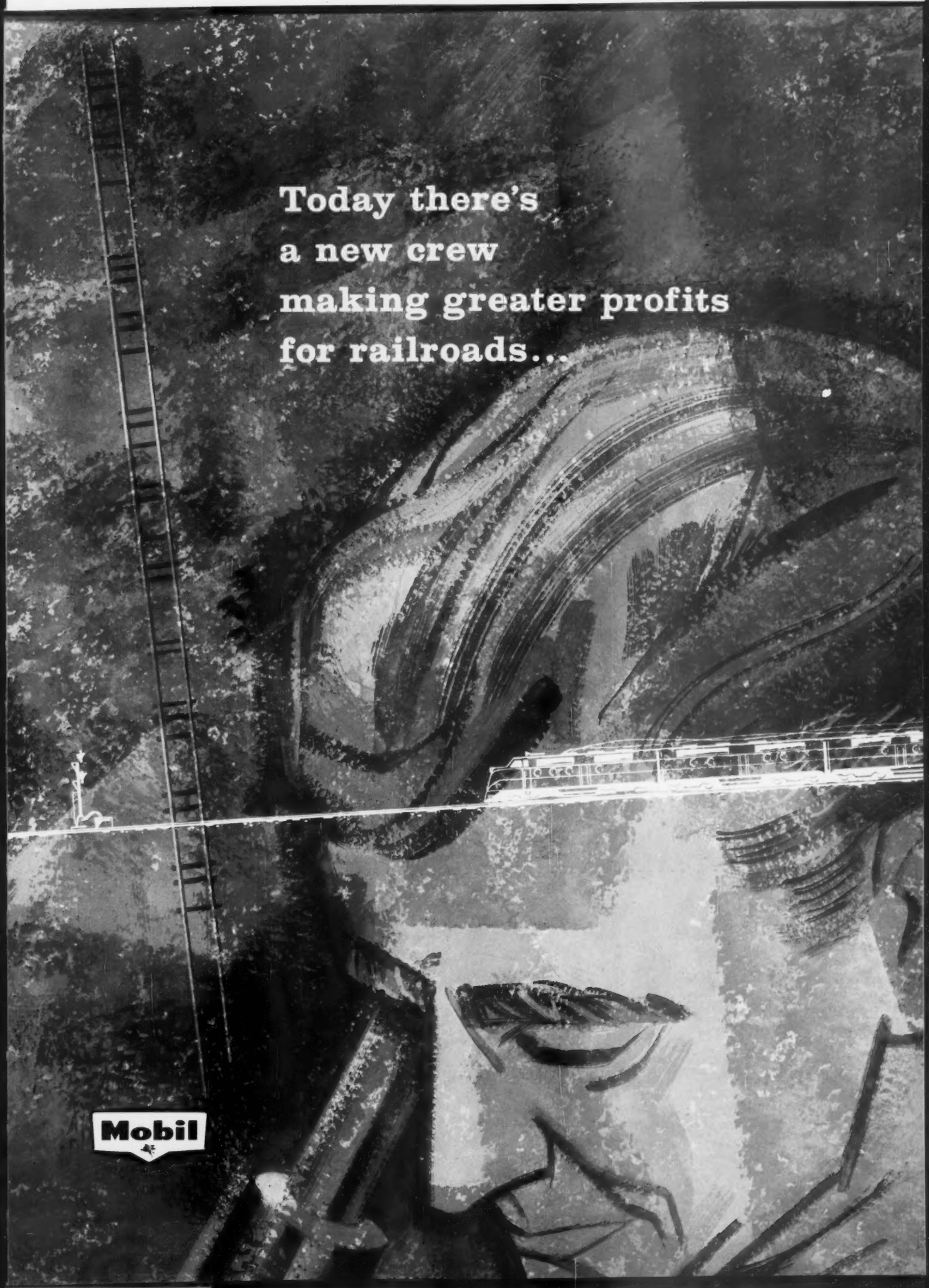
Two welding machines, rated 180 and 250 amp respectively, and designed to operate equally well either as an a-c transformer type welder or a d-c rectifier type welder, are now available. A switch on the front panel changes the welder from a-c operation to d-c positive or d-c negative. The two-in-one feature enables operation of all types of manual electrodes, including stainless and alloy rods. The units are also available as straight a-c machines, without d-c, to which the d-c rectifier can be added.

The machines operate on single-phase 230-volt, a-c input power. Power factor correction condensers and special input voltages are available as optional features.

Continuous current control is provided for the entire range of welding heat which extends from current suitable for light sheet metal to current required for heavier plate and structural steels. A direct reading current indicator shows the current setting.

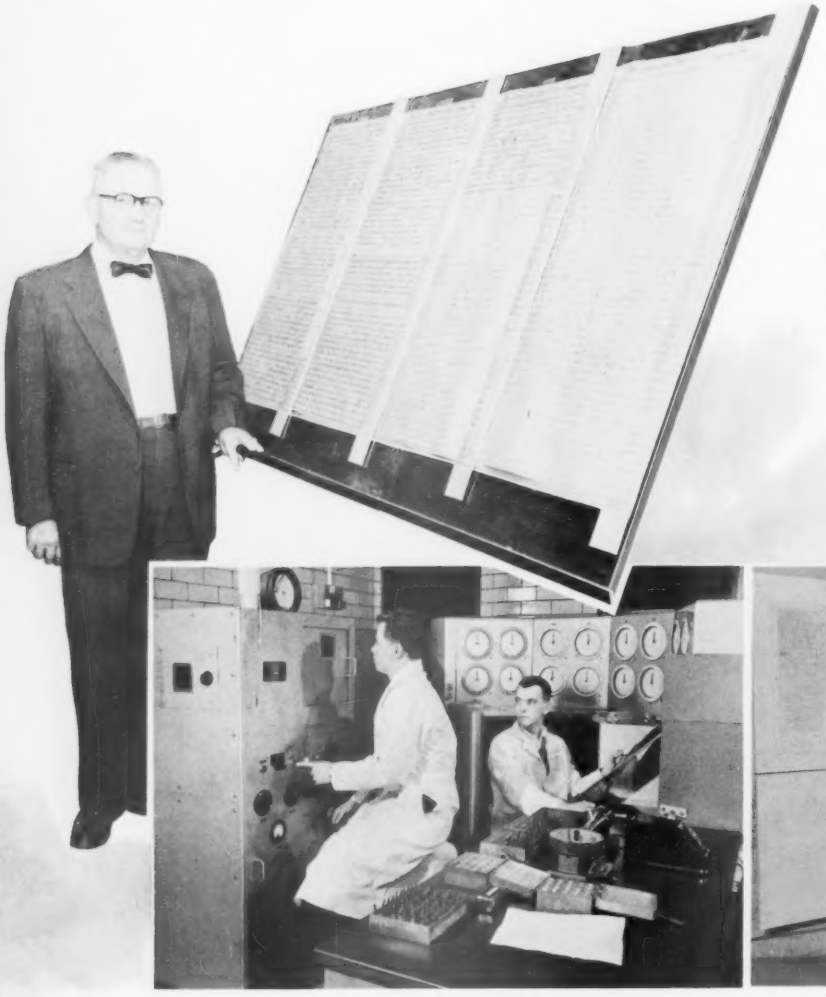
Overload protection, a recessed front panel to protect controls, cable strain loops, and an arc stabilizer on the 250-amp model are additional features.

The welders are NEMA rated 180 amp at 25 volts, 20 per cent duty cycle for the 180-amp model, and 250 amp at 30 volts, 30 per cent duty cycle for the 250-amp model. *Lincoln Electric Company, Dept. RA, Cleveland 17* ●


Today there's
a new crew
making greater profits
for railroads...
Mobil

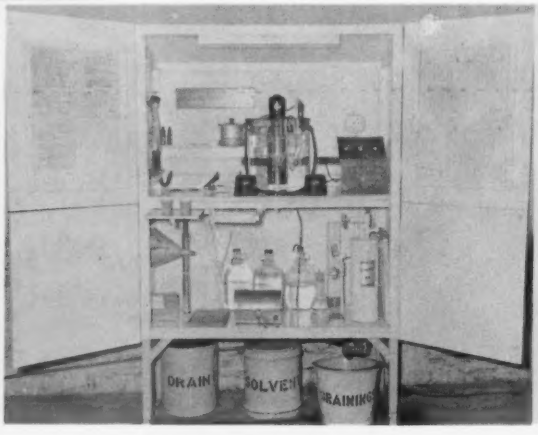
Men of science are bringing controls to the problem of reducing maintenance ratios...

The men pictured on these pages, despite their scholarly appearance, white laboratory coats, and preoccupation with microscopes and glass tubing, are railroad men serving in the best traditions of Casey Jones, Sam Hill, and other legendary figures of Iron Horse days. They are scientists and technicians at work in railroad Test Departments, a rather misleading title for a job description that is part applied research, part quality control, part scientific sleuth.



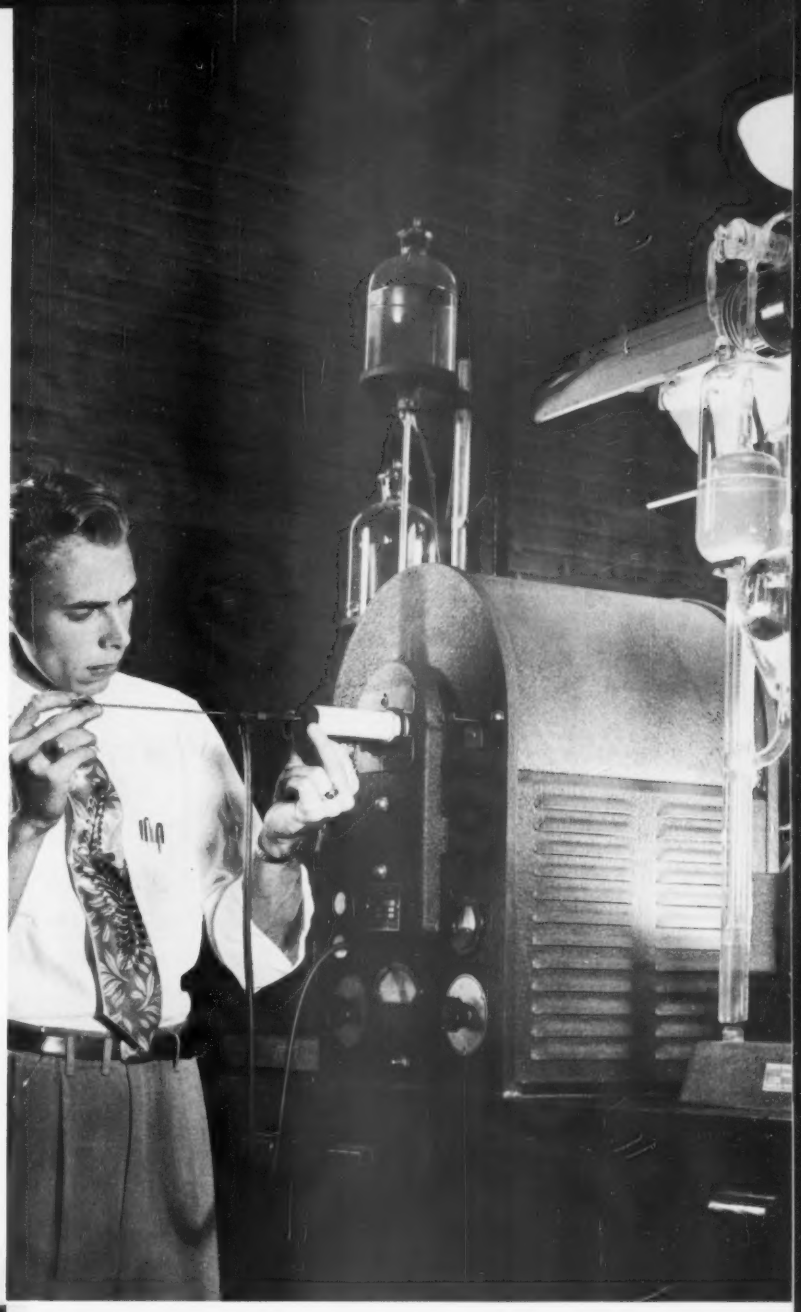
G. A. Little, Chief Chemist on the KANSAS CITY SOUTHERN, can tell by a glance at this unique running record chart of lube oil whether any locomotive has fuel dilution or other troubles.

The Direct Reading Spectrograph permits the NEW YORK CENTRAL to maintain a continuous check of the mechanical condition of 1800 locomotives.



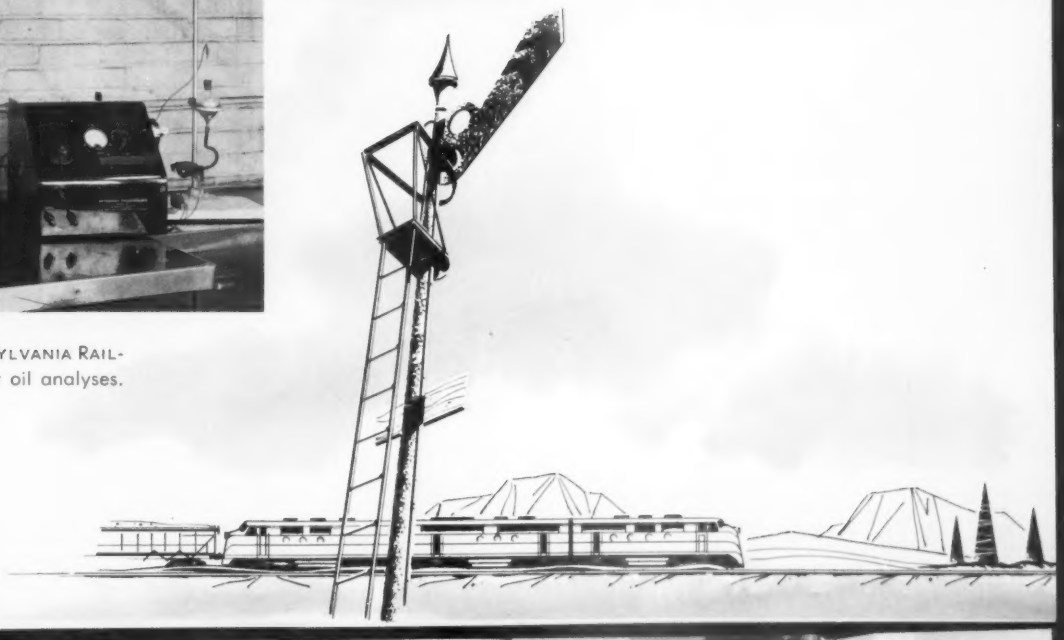
The GULF, MOBILE & OHIO was the first to introduce real field control over engine condition through the use of this "Diesel Oil and Water Control Cabinet."

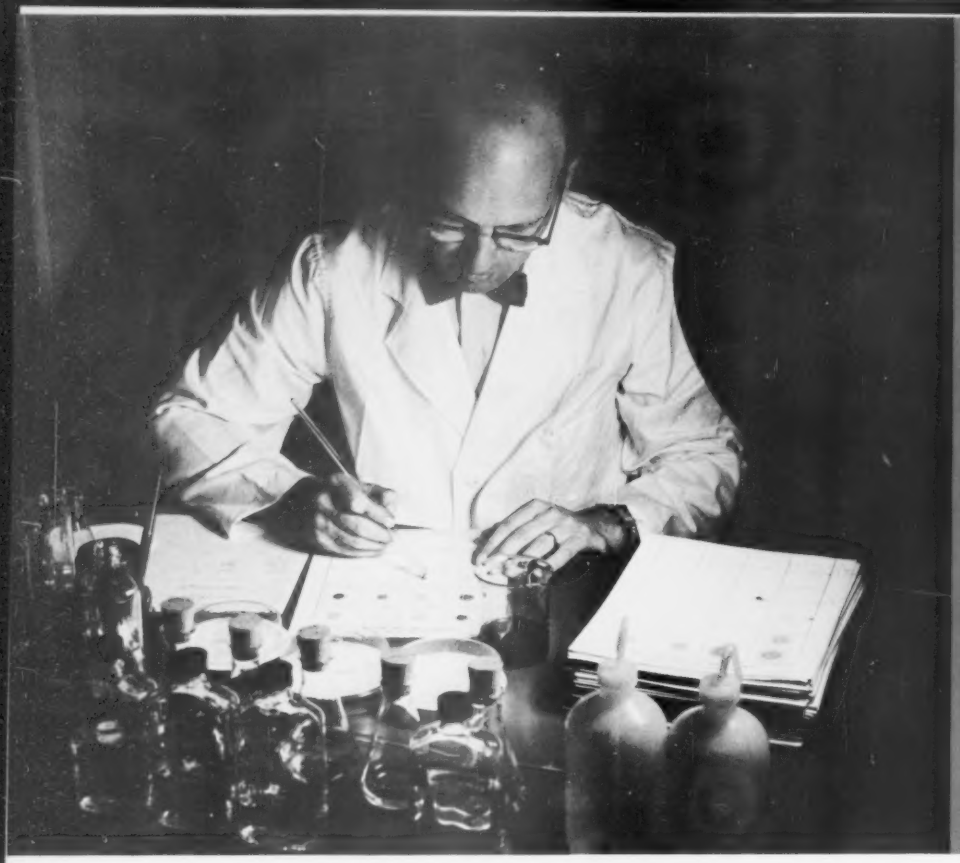
The functions of a Test Department in a modern-day railroad roughly parallel those of the Research and Development Laboratory in a manufacturing company. The manufacturing company is primarily concerned with creating a product; its scientific people are continually searching for ways to make this product more useful or attractive to the customer. A railroad, on the other hand, while it has the same customer interests to serve, has no such product to sell. Rather, it sells the service of its entire facilities as a prime mover of other people's merchandise. The job of the railroad scientist, therefore, is to apply his scientific knowledge to the problem of maintaining these facilities in serviceable condition, prolonging their economic life, and lowering their operating costs.



H. A. Bodie, Jr. analyzes a sample of steel in the BALTIMORE AND OHIO's laboratory.

The Test Department of the PENNSYLVANIA RAILROAD employs the Polargraph for oil analyses.



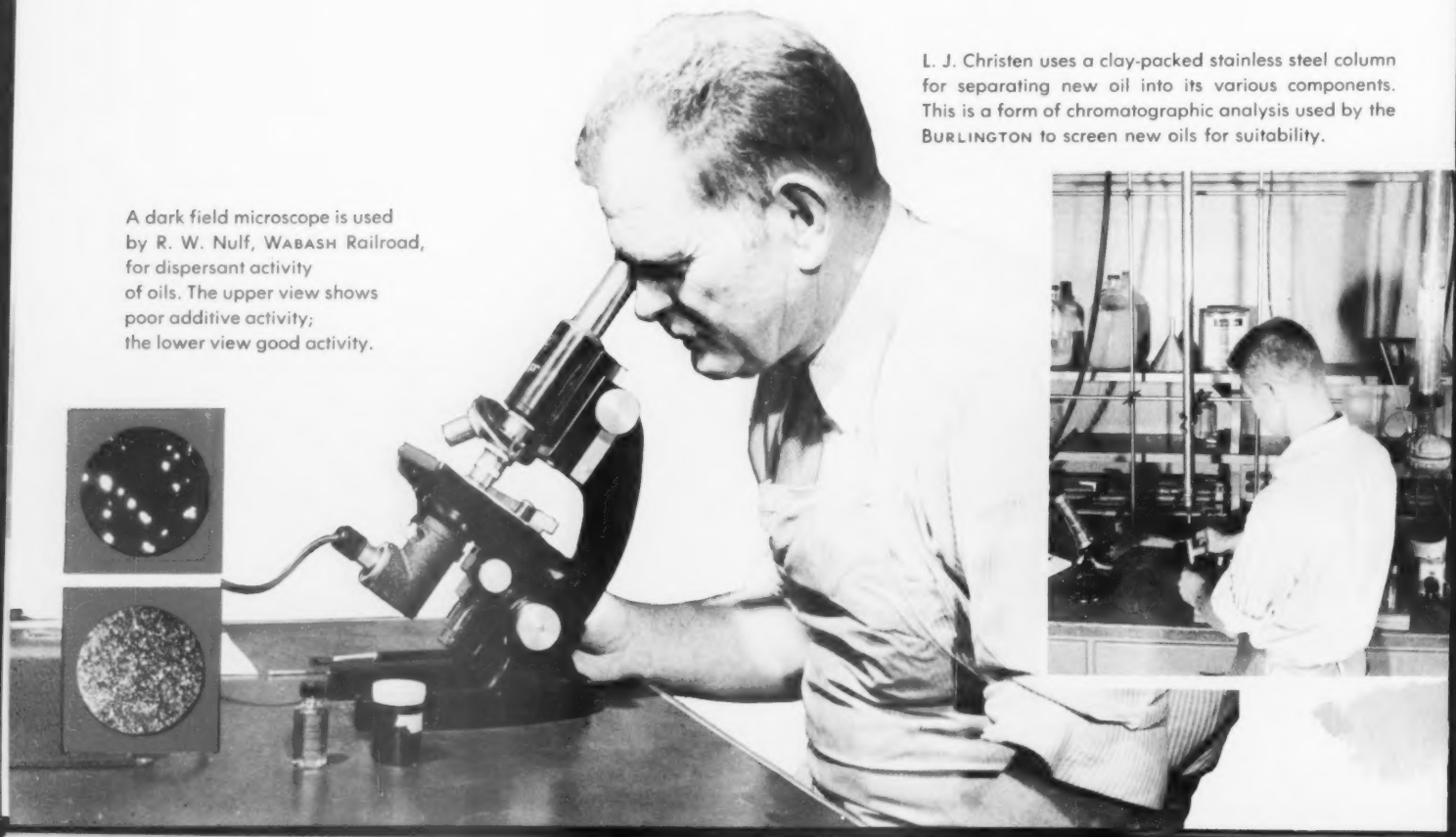


The SOUTHERN PACIFIC employs a form of chromatographic analysis for studying the condition of used diesel engine oil. E. R. Thomas is performing the test.

The forerunners of present day Test Departments began to make an appearance around the turn of the century. The first technical activities were testing coal for combustible properties and water for mineral content. Gradually, as these technically trained men became more familiar with railroading they brought their scientific procedures to bear on other aspects of railroad operation. Metallurgical analysis to evaluate the performance of rails, switch points, wheels, and bearings; paints and protective coatings to be tested under many different types of conditions; cleaning materials, lubricating oils, fuels, and a host of other expendable supplies needed appraisal under actual operating conditions.

L. J. Christen uses a clay-packed stainless steel column for separating new oil into its various components. This is a form of chromatographic analysis used by the BURLINGTON to screen new oils for suitability.

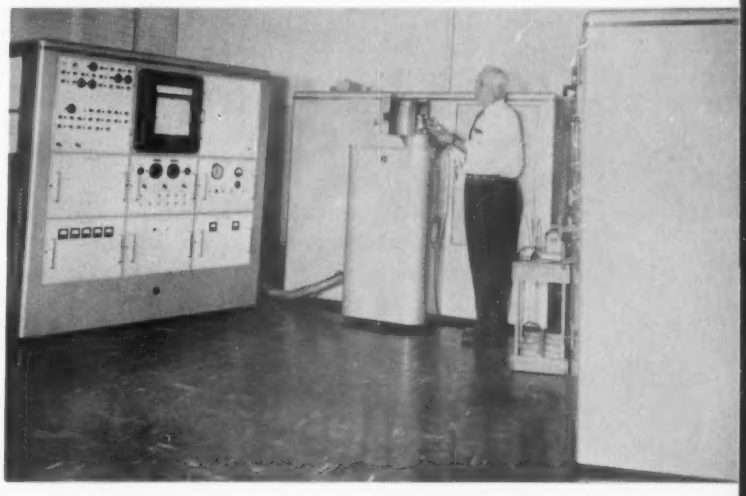
A dark field microscope is used by R. W. Nulf, WABASH Railroad, for dispersant activity of oils. The upper view shows poor additive activity; the lower view good activity.



One of the more interesting activities of many present day Test Departments is their work in the area of equipment maintenance. The modern railroad scientist has become a kind of technical sleuth, employing his laboratory equipment in much the same way as a doctor uses a stethoscope or an electrocardiograph: to locate the signs of potential trouble. And like the doctor relies on a blood analysis to tell him much about the condition of a patient, railroad scientists seek information from another kind of vital stream: the lubricating oil of a diesel engine.

Analysis of a small sample of crankcase oil will reveal many things about that engine's internal condition. The presence of chromium in the sample, for example, can be a definite danger signal. Chromium, while it is used to plate the inside of cylinder liners and would, therefore, be present in small amounts in the lubricating oil due to normal cylinder wear, is also used as a rust inhibitor in the engine's cooling system. If the chromium content of an oil sample takes a sudden jump over past analyses, a coolant leakage into the crankcase of that particular engine is indicated. This leakage can come from a ruptured cylinder-head gasket or liner seal which, if not replaced, will continue to bleed water into the crankcase until the lubricating property of the oil becomes seriously impaired. At this point, a bearing failure is imminent and a scored or broken crankshaft more than just a possibility. A new crankshaft costs several thousands of dollars and its replacement keeps an engine out of service for days—far longer than the time it takes to replace a head gasket.

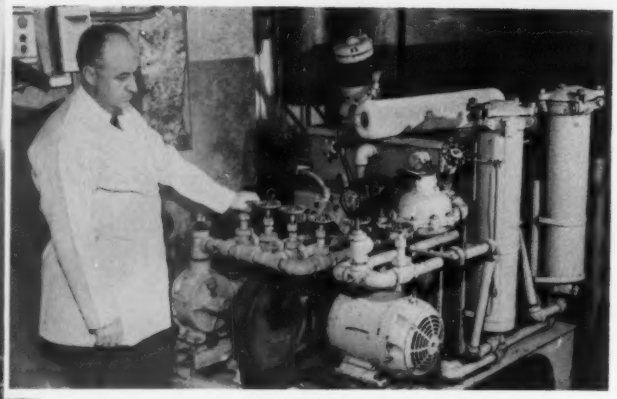
The SOUTHERN Railroad is the first to employ an Infrared Spectrophotometer in the research programs. It is used for studying fuels, lubricants, and weed-control oils among other things.



Engine wear, water leaks, loss of oil additives, can quickly be determined by analyzing a drop of oil in the Quantometer—a Super Spectrograph. V. C. Barth, Chief Metallurgist and Engineer of Tests for the CHICAGO & NORTH WESTERN is observing the operation.

J. L. Adam, Chemist for the ST. LOUIS & SOUTHWESTERN uses a colorimetric method for finding engine wear metals and water in used oil samples.

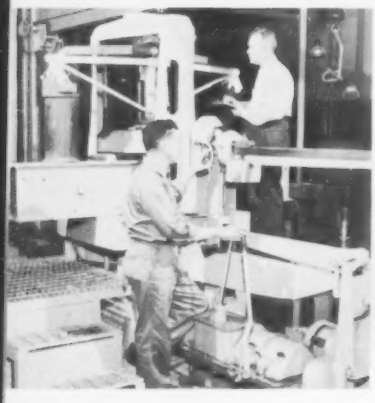
The DENVER & RIO GRANDE pioneered in the use of the electron microscope. George Wood studies the structural changes that have occurred in a grease during service in a bearing.



The suitability of oil filters can be determined in this rig, operated by V. B. Smesrude, Chief Chemist of the UNION PACIFIC.

Quality of new diesel engine oils is studied using the EMD Silver Corrosion and Stability Test on the FRISCO.

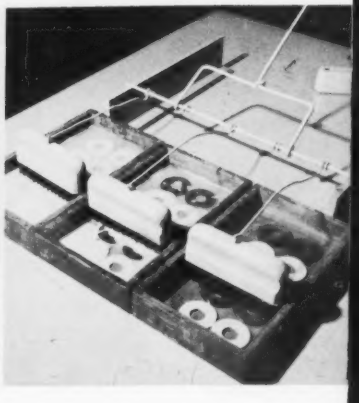
The past few years have seen Test Departments playing a greater part in the development of new equipment, methods and materials. Today, companies that are in the business of supplying railroads look to Test Departments for many kinds of help. These railroad suppliers are specialists in their own fields; they're oil chemists, for example, and know how to take an oil apart and put it together again in a hundred different ways, each variation having a slightly different characteristic. But no new product can ever be completely evaluated in a laboratory, so companies like Socony Mobil have come to depend on Test Departments for the vitally important field testing phase in new product development.



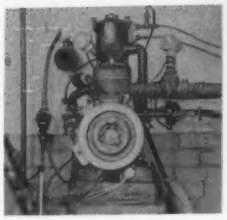
Brake beams being tested in the Laboratories of the MILWAUKEE ROAD.

A SANTA FE technician using a Timken oil tester to evaluate car journal oils for friction and load-carrying capacities.

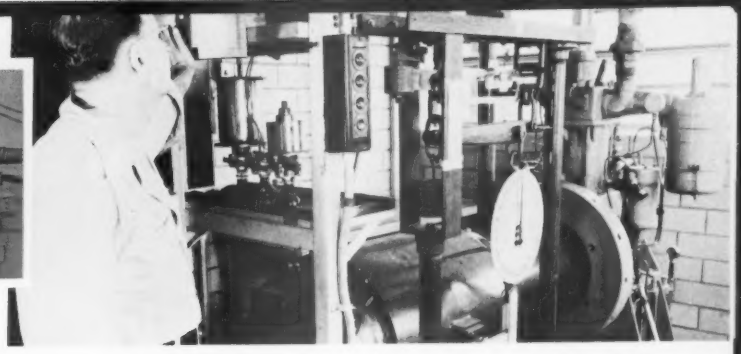
Paints and other protective films are evaluated in a Weather-O-Meter by the Test Department of the GREAT NORTHERN prior to approval for purchase as well as for quality control.



This Scrubbing Machine in the Test Department of the CHESAPEAKE & OHIO permits testing cleaners, paints, and brushes.



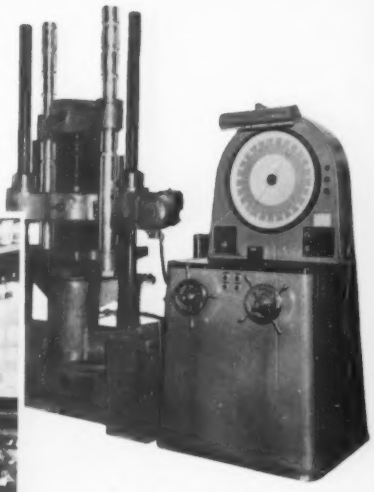
The MISSOURI PACIFIC Test Department uses the Lauson Oil Test Engine for checking the performance of new oils and for studying the compatibility of crankcase oils.



The single cylinder Caterpillar engine, a standard test engine used jointly by the automotive and petroleum industries is used by A. K. Turner, of the ROCK ISLAND LINES.

The close working relationship that has grown up between the technical groups of railroads and suppliers has proved to be a two-way street so far as new ideas are concerned. The railroad scientist knows intimately the problems and needs of his industry and is capable of intelligently translating these needs to the scientists in various other industries. The techniques which Test Departments use for oil analysis have been developed with the help of oil chemists like those at Socony Mobil's Research laboratories. In the same manner, Test Departments have guided Socony research technicians in establishing sounder laboratory procedures for evaluating diesel engine requirements.

L. R. Thornton, Assistant Chemist of the TEXAS & NEW ORLEANS, uses a Bechman Flame Spectrophotometer for determining the concentration of engine wear and additive metals in engine oils.



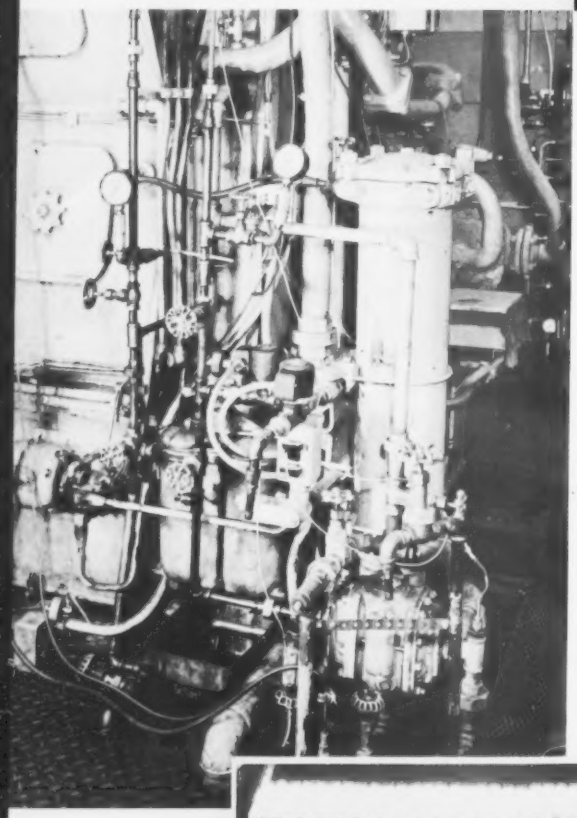
The 60-ton Southwark-Tate-Emory Universal Testing Machine in the Test Department of the NORTHERN PACIFIC.

R. L. Eves, Chemist for the ERIE, checks the degree of oxidation of a used oil with an Electrometric Titrator to determine acid content.

The Kinematic Viscosimeter, shown here in the laboratory of the READING COMPANY, measures changes in viscosity of the oil due to oxidation or fuel dilution.

Fuel stability is checked using a filtration-type test by L. E. Talbot, Chief Chemist of the TEXAS & PACIFIC.

2-cylinder railroad-type diesel test engine at Socony Mobil laboratories.

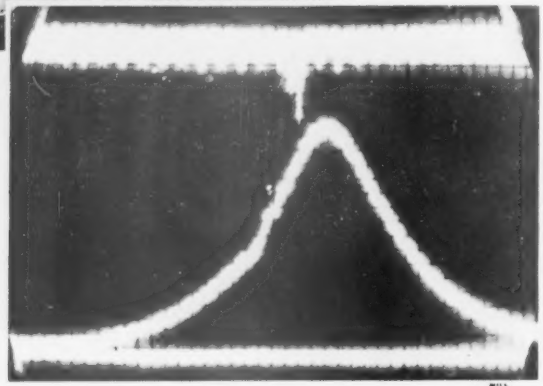


The handling system for heavy fuels.

A timely example of petroleum research working for the railroads is an investigation currently underway in the Fuels Section of Socony Mobil's huge Research and Development Laboratory at Paulsboro, New Jersey. In a laboratory EMD 2-567B diesel engine Socony scientists and engineers are studying the combustion characteristics of heavy fuel oils. Their objective is to collect basic data necessary to the further evaluation of these heavy fuels in actual service.

Heavy fuel oil molecules contain much more heat energy than the light oils. If railroad diesels can use a heavier oil it would mean an appreciable savings in fuel consumption alone. On the basis of the work done thus far, Socony technicians conclude that in short term combustion tests, the laboratory engine operated satisfactorily. The need now is for long-term tests, both laboratory and field, in order to determine the overall economy of burning heavier fuels.

Fundamental investigations such as this one at Socony Mobil, in conjunction with other petroleum industry and railroad research, conceivably will bring a new concept in diesel fuels. Working together, contributing assistance to each other's problems, men of science continue to advance the efficiency of rail transportation.



Pressure-time combustion diagram—a graphic representation of the fuel explosion inside a diesel cylinder.

SOCONY MOBIL OIL COMPANY, INC., and Affiliates:
MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP.

Mobil

Railroad Products

150 East 42nd St., New York 17, N. Y.
59 East Van Buren St., Chicago 5, Ill.

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
NOTICE OF SALE

Pursuant to an order of the United States District Court for the Southern District of New York, filed in the office of the Clerk of said Court on May 15, 1957, in the cause entitled *United States of America* vs. *Louis D. Freeman, Trustee, etc., et al.* (Civil 116-204), the undersigned will sell at public sale, free from lien, at United States Court House, Foley Square, New York City, New York, Room 618 on June 25, 1957, at 10:00 o'clock in the forenoon, Eastern Daylight Saving Time, or at such later hour and day to which the Court may adjourn such sale, the property in said order and in this Notice of Sale described and directed to be sold, pursuant to the terms of sale incorporated in said order and set forth herein. Said property is briefly described below.

I. PROPERTIES TO BE SOLD

All properties and places hereinafter specified are in the State of New York, unless otherwise stated.

Part I
Sale of System

The respective properties of the system of New York, Ontario and Western Railway Company offered for sale are as follows:

1. Railroad right of way of New York, Ontario and Western Railway Company, the same commencing at a point of contact with the right of way of West Shore Railroad Company at Cornwall, and extending thence northwesterly about 271 miles to the terminus thereof at the northerly line of East Cayuga Street, at about Valuation Station 14364 + 15 in Oswego, and including

(a) The Ellenville Branch extending from Summitville to Valuation Station 2,497 + 19.3 in Ellenville, a distance of about 7.37 miles.

(b) The Delhi Branch, extending from Walton to the terminus thereof in Delhi, a distance of about 16.87 miles.

(c) The Branch lines from Randallsville to Utica and Rome, the former extending a distance of about 31.26 miles to the terminus thereof in Utica, and the latter extending from Clinton, a distance of about 12.80 miles to the terminus thereof in Rome.

(d) The railroad right of way of Pecksport Connecting Railway Company extending from Pecksport, a distance of about 3.70 miles to White's Corners.

(e) Certain lands with improvements thereon, situate in the Village of Cornwall, Orange County, partially under the waters of the Hudson River, and more fully described hereinafter as SEGMENT NO. 2 of Part II.

2. Trackage rights over the West Shore Railroad from Cornwall to Weehawken, New Jersey, a distance of about 53.07 miles, to the extent the same are assignable and may be conveyed by the Receivers.

3. Trackage rights over the New York, New Haven & Hartford Railroad from Campbell Hall to Maybrook, a distance of about 2.24 miles, to the extent the same are assignable and may be conveyed by the Receivers.

4. The railroad right of way of Ellenville & Kingston Railroad Company, commencing at Valuation Station 2,497 + 19.3 in Ellenville and extending thence northeasterly to the terminus thereof at Valuation Station 3,963 + 47.9 a distance of about 27.77 miles.

5. The railroad right of way of Port Jervis, Monticello & Summitville Railroad Company extending from about Valuation Station 2,106 + 25 in Summitville, southwesterly to Valuation Station 3,265 + 75.8 at the intersection of the Port Jervis branch with the easterly right of way line of the Erie Railroad Company in the City of Port Jervis, a distance of about 21.96 miles; including the Monticello branch, commencing at a point of switch at Valuation Station 2,859 + 07.9 in the above mentioned Port Jervis branch at Valley Junction in the Town of Deerpark and extending thence northerly to the terminus thereof at Valuation Station 3,716 + 15 in Monticello, a distance of about 16.23 miles.

6. (a) The railroad right of way of Ontario, Carbondale and Scranton Railway Company, extending from a point of switch at Valuation Station 5636 + 10.7 in Cadosia to the terminus thereof at Valuation Station 8,469 + 15.6, in the City of Scranton, Pennsylvania, a distance of about 53 miles, and including the Capouse Branch extending from Dickson City, Pennsylvania to Sibley Junction, Pennsylvania, a distance of about 9 miles, and including the following mine branches:

(i) Riverside Branch extending from Winton, Pennsylvania, to the terminus thereof, a distance of about 2.50 miles.

(ii) Raymond Washery Branch extending from Archibald to the terminus thereof, a distance of about 0.16 miles.

(b) Leasehold rights derived from the New York, Susquehanna & Western Railroad Company at Olyphant, Pennsylvania, extending a distance of about 1.03 miles, to the extent the same are assignable and may be conveyed by the Receivers.

(c) Trackage rights over the Delaware, Lackawanna and Western Railroad between Pittston Junction, Pennsylvania, and Cayuga Junction, Pennsylvania, a distance of about 10.34 miles, to the extent the same are assignable and may be conveyed by the Receivers.

(d) Trackage rights over the Lehigh Valley Railroad from Sibley Junction, Pennsylvania to Coxton Yard, Pennsylvania, a distance of approximately 6 miles, to the extent the same are assignable and may be transferred by the Receivers. (Notices purporting to cancel such trackage rights were received by the Receivers on approximately May 10, 1957).

(e) All the right, title and interest, if any, of the Receivers in and to the approximately 10.8 acres of surface land only, with improvements thereon, situate in the Borough of Duryea, Luzerne County, Pennsylvania, and more fully described hereinafter as SEGMENT NO. 22 of Part II.

7. All land, buildings, tracks, bridges, tunnels, wires, signals, station houses, shops and all other fixed improvements on each of the foregoing railroad rights of way, together with all appurtenances, erections and structures necessary and appurtenant to or used in the operation of said lines or railroad.

8. All offline or outlying real property of the railroad lines, consisting of real property not directly connected with the operation of the railroad lines offered for sale, and all fixed improvements thereon.

9. All franchises, rights, easements and privileges possessed and assignable by the Receivers in the premises of each of the railroads offered for sale including all joint facilities, trackage and leasehold rights possessed and assignable by them at the time of sale.

10. All physical personal property located on the railroad lines offered for sale at the time of delivery of possession thereof to the purchaser, including the personal property listed in Schedule No. I, hereto annexed and made a part hereof.

11. All coal on the surface and forming embankment on the right of way of the Ontario, Carbondale and Scranton Railway Company, as stated in Schedule IV, annexed hereto and made a part hereof.

PROVIDED THAT THE FOLLOWING PROPERTIES ARE EXCLUDED FROM THE FOREGOING PROPERTIES OFFERED FOR SALE AS A SYSTEM

(1) Certain lands in the town of West New York, New Jersey, comprising about 12 acres, partly under water, with improvements thereon, more fully described hereinafter as SEGMENT NO. 1 of Part II.

(2) Certain lands in the City and County of Oswego comprising about 12 acres, with improvements thereon, more fully described hereinafter as SEGMENT NO. 20 of Part II.

(3) Certain lands in the City and County of Oswego comprising about 21 acres, partly under water, with improvements thereon, more fully described hereinafter as SEGMENT NO. 21 of Part II.

(4) Road Department Materials and Supplies as hereinafter described in Schedule No. II, annexed hereto and made a part hereof.

(5) Any and all diesel-electric locomotives.

(6) Motive Power Material and Supplies as hereinafter described in Schedule No. III, annexed hereto and made a part hereof.

(7) Passenger Train Car No. 30 (Business Car).

Part II
Sale of Segments

A separate bid for each of the following designated segments of said railroad system is invited, the same being briefly and generally identified as follows:

SEGMENT NO. 1. Certain lands in the Town of West New York, Hudson County, New Jersey, comprising about 12 acres, about 4 acres of which are under waters of the Hudson River, with a frontage of about 346 feet on the westerly side of the Hudson River, with rights therein to the established pier head line, situated in Lots A, C and D in Plot G of Block 179, being the lands referred to in a Deed by T. P. Fowler, dated January 28, 1895, and by grant from the State of New Jersey dated December 30, 1897, recorded in Hudson County, Book 616, page 97, and Book 691, page 255, respectively, together with all improvements thereon, consisting principally of two timber coal piers, buildings, about 2 miles of trackage, and a truck scale, and all appurtenances, including rails situate on adjacent lands leased from the New York Central Railroad Company, to the extent that said rails may be conveyed by the Receivers.

SEGMENT NO. 2. Certain lands in the Village of Cornwall, Orange County, comprising about 21 acres lying entirely between tracks of the West Shore Railroad Company (New York Central Company) and the Hudson River, about 14 acres of which are under the waters of said River, being the land referred to (1) by Mary G. and Josephine R. Taft and their respective husbands in a Deed dated April 27, 1889, (2) by Mary G. Taft and her husband in a Deed dated September 1, 1892, (3) by Mary G. Taft and her husband in a Deed dated August 2, 1898, and (4) by Chauncey M. Depew in a Deed dated October 24, 1899, all recorded in Orange County, Book 367, page 81; Book 426, page 506; Book 438, page 135, and Book 444, page 372, respectively, including improvements thereon, consisting principally of a building in the nature of a workshop.

SEGMENT NO. 3. That part of the railroad right of way of New York, Ontario and Western Railway Company commencing at a point of contact with the right of way of West Shore Railroad Company at Cornwall, Orange County, and extending thence northwesterly to the southerly line of East Main Street in the City of Middletown, Orange County, a distance of about 24 miles.

SEGMENT NO. 4. That part of the railroad right of way of New York, Ontario and Western Railway Company commencing at the southerly line of East Main Street in the City of Middletown, Orange County and extending thence northerly to a point of switch at Valuation Station 1,494 + 16 (Crawford Junction), Town of Wallkill, Orange County, a distance of about 3.57 miles, including the so-called Middletown Yard with all improvements thereon, but excluding therefrom the so-called Wickham Avenue Railway Station and office building in Middletown and the approximately 0.8 acre of land upon which said building is situated, hereinafter described as SEGMENT NO. 5, and excluding all personal property listed in Part III hereof.

SEGMENT NO. 5. The so-called Wickham Avenue Railway Station and office building, being the premises known and described as No. 135 Wickham Avenue, in the City of Middletown, Orange County, together with the land upon which the same is situate, comprising approximately 0.8 acre, fronting about forty-five feet on Wickham Avenue on the south, about 450 feet on Low Avenue on the west, and bounded on the east by a line defined by the easterly edge of the existing canopy roof of the aforesaid building, and bounded on the north by the southerly line of lands of Midtown Plumbing and Supply Co., Inc. and the easterly extension of said line, excluding personal property therein and thereon.

SEGMENT NO. 6. That part of the railroad right of way of New York, Ontario and Western Railway Company commencing at a point of switch at Valuation Station 1,494 + 16 (Crawford Junction) in the Town of Wallkill, Orange County, and extending thence northerly to Valuation Station 5,690 + 0 (about 60 feet southerly of the center line of Bridge 160.8 and approximately 5,000 feet northerly of Cadosia Station) in the Town of Hancock, Delaware County, a distance of about 79.47 miles, including the so-called Cadosia yard with all improvements thereon (excluding personal property listed in Part III hereof); but excluding all lands, tracks, and other improvements of the so-called Port Jervis Branch lying westerly of a line 90 feet westerly of and parallel to the center line of the main track of the main line at Summitville; and also excluding all lands, tracks and improvements of the so-called Scranton Branch at the junction with the main line and lying westerly of a line 80 feet westerly of and parallel to the center line of the most westerly track of the main line in the vicinity of the railway station at Cadosia, Delaware County.

SEGMENT NO. 7. That part of the railroad right of way of New York, Ontario and Western Railway Company known as the Ellenville Branch, commencing at a line 80 feet easterly of and parallel to the center line of the main track of the main line at Summitville, Town of Mamakating, Sullivan County, and extending thence northeasterly to a point of switch, at Valuation Station 2,497 + 19.3, marking the division of ownership between the New York, Ontario and Western Railway Company and the Ellenville and Kingston Railroad Company in the Village of Ellenville, Ulster County, a distance of about 7 miles.

SEGMENT NO. 8. The railroad right of way of the Ellenville and Kingston Railroad Company, commencing at a point of switch at Valuation Station 2,497 + 19.3, in the Village of Ellenville, Ulster County, marking the division of ownership between New York, Ontario and Western Railway Company and Ellenville and Kingston Railroad Company and extending thence northeasterly to the terminus thereof at Valuation Station 3,963 + 47.9 in the City of Kingston, a distance of about 27.77 miles.

SEGMENT NO. 9. The railroad right of way of the Port Jervis, Monticello and Summitville Railroad Company commencing at Summitville at a line about 90 feet westerly of and parallel to the center line of the main track of the New York, Ontario and Western Railway Company and extending thence southwesterly to Valuation Station 3,265 + 75.8 at the intersection with the easterly right of way line of the Erie Railroad Company in the City of Port Jervis, Orange County, a distance of about 21.80 miles; including the so-called Monticello branch commencing at a point of switch at Valuation Station 2,859 + 07.9 on the Port Jervis, Monticello and Summitville Railroad at Valley Junction in the Town of Deerpark, Orange County, and extending thence northerly to the terminus of the said Monticello branch at Valuation Station 3,716 + 15 in the Village of Monticello, Sullivan County, a distance of about 16.23 miles.

SEGMENT NO. 10.

(a) The railroad right of way of Ontario, Carbondale and Scranton Railway Company, commencing at a line about 80 feet westerly of and parallel to the center line of the most westerly track of the main line of the New York, Ontario and Western Railway Company in the vicinity of the railway station at Cadosia, Delaware County, and extending thence to the terminus thereof at Valuation Station 8469 + 15.6, in the City of Scranton, Pennsylvania, a distance of about 53 miles, and including the Capouse Branch extending from Dickson City, Pennsylvania to Sibley Junction, Pennsylvania, a distance of about 9 miles, and including the following mine branches:

(i) Riverside Branch extending from Winton, Pennsylvania, to the terminus thereof, a distance of about 2.50 miles.

(ii) Raymond Washery Branch extending from Archbald to the terminus thereof, a distance of about 0.16 miles.

(b) Leasehold rights, to the extent that the same are assignable and may be conveyed by the Receivers, derived from the New York, Susquehanna & Western Railroad Company at Olyphant, Pennsylvania, extending a distance of 1.03 miles.

(c) Trackage rights over the Delaware, Lackawanna and Western Railroad between Pittston Junction, Pennsylvania and Cayuga Junction, Pennsylvania, a distance of about 10.34 miles to the extent the same are assignable and may be conveyed by the Receivers.

(d) Trackage rights over the Lehigh Valley Railroad from Sibley Junction, Pennsylvania to Coxton Yard, Pennsylvania, a distance of approximately 6 miles to the extent the same are assignable and may be conveyed by the Receivers. (Notices purporting to cancel such trackage rights were received by the Receivers on approximately May 10, 1957).

SEGMENT NO. 11. That part of the railroad right of way of Ontario, Carbondale and Scranton Railway Company commencing at a line about 80 feet westerly of and parallel to the center line of the most westerly track of the main line of the New York, Ontario and Western Railway Company in the vicinity of the railway station at Cadosia, Delaware County, and extending thence to the easterly line of Mount Pleasant Road at Poyntelle, Pennsylvania, a distance of about 16.50 miles.

SEGMENT NO. 12. That part of the railroad right of way of Ontario, Carbondale and Scranton Railway Company commencing at the easterly line of Mount Pleasant Road at Poyntelle, Pennsylvania, and extending thence northerly to a point of switch at Valuation Station 7,717 + 86 in the Borough of Mayfield, Lackawanna County, Pennsylvania, a distance of about 23 miles.

SEGMENT NO. 13. That part of the railroad right of way of the Ontario, Carbondale and Scranton Railway Company commencing at a point of switch at Valuation Station 7,717 + 86 in the Borough of Mayfield, Lackawanna County, Pennsylvania, and extending thence southerly to a point of switch at Valuation Station 7,758 + 30 in the said Borough, a distance of about one mile, including the so-called Mayfield Yard and all improvements thereon, excluding personal property listed in Part III hereof.

SEGMENT NO. 14.

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(a) That part of the railroad right of way of the Ontario, Carbondale and Scranton Railway Company commencing at a point of switch at Valuation Station 7,756 + 30 in the Borough of Mayfield, Lackawanna County, Pennsylvania, and extending thence southerly to the terminus thereof at Valuation Station 8,469 + 15.6 in the City of Scranton, Pennsylvania, a distance of about 13 miles, and including the Capouse Branch extending from Dickson City, Pennsylvania to Sibley Junction, Pennsylvania, a distance of about 9 miles and including the following mine branches:

(i) Riverside Branch extending from Winton, Pennsylvania, to the terminus thereof, a distance of about 2.50 miles.

(ii) Raymond Washery Branch extending from Archbald to the terminus thereof, a distance of about 0.16 miles.

(b) Leasehold rights derived from the New York, Susquehanna & Western Railroad Company at Olyphant, Pennsylvania, extending a distance of about 1.03 miles to the extent the same are assignable and may be conveyed by the Receivers.

(c) Trackage rights over the Delaware, Lackawanna and Western Railroad between Pittston Junction, Pennsylvania and Cayuga Junction, Pennsylvania, a distance of about 10.34 miles to the extent the same are assignable and may be conveyed by the Receivers.

(d) Trackage rights over the Lehigh Valley Railroad from Sibley Junction, Pennsylvania to Coxton Yard, Pennsylvania, a distance of about 6 miles to the extent the same are assignable and may be conveyed by the Receivers. (Notices purporting to cancel such trackage rights were received by the Receivers on approximately May 10, 1957).

SEGMENT NO. 15. That part of the railroad right of way of the New York, Ontario and Western Railway Company commencing at Valuation Station 5,690 + 0 (about 60 feet southerly of the center line of the Bridge 160.8 and approximately 5,000 feet northerly of the railway station in the Village of Cadosia) in the Town of Hancock, Delaware County, extending thence northerly to the north line of Polkville Road at about Valuation Station 9,055 + 55 in the City of Norwich, Chenango County, a distance of about 63.74 miles, including the so-called Delhi Branch, extending from Walton to the terminus thereof in Delhi, a distance of about 16.87 miles.

SEGMENT NO. 16. That part of the railroad right of way of the New York, Ontario and Western Railway Company, commencing at the north line of Polkville Road at about Valuation Station 9,055 + 55 in the City of Norwich, Chenango County, and extending thence northerly by way of Eaton to a point about 900 feet southerly of the center line of Walnut Street in the City of Oneida, Madison County, a distance of about 42.59 miles, including the so-called Norwich yard and all improvements thereon (excluding personal property listed in Part III hereof); also including that part of the railroad right of way of the so-called Utica Branch of the New York, Ontario and Western Railway Company, commencing at Randallsville, Town of Lebanon, Madison County, and extending northeasterly to the line between the Town of Eaton and the Town of Madison, Madison County, at about Valuation Station 10,416 + 0, a distance of about 5.79 miles; also all of the railroad right of way of the Pecksport Connecting Railway Company, commencing at Pecksport in the Town of Eaton, Madison County, and extending thence northerly to the terminus thereof at White's Corners, Town of Eaton, Madison County, a distance of about 3.70 miles.

SEGMENT NO. 17. That part of the railroad right of way of the so-called Utica Branch of the New York, Ontario and Western Railway Company, commencing at the line between the Town of Eaton and the Town of Madison, Madison County, at about Valuation Station 10,416 + 0 (excluding all land, tracks and other improvements of the Pecksport Connecting Railway Company lying westerly of a line 49.5 feet westerly of and parallel to the center line of the main tracks of the said Utica Branch, at Pecksport, Madison County), and extending thence northeasterly to the terminus of said Utica Branch in the City of Utica, Oneida County, a distance of about 25.47 miles; including the so-called Rome Branch commencing in the Village of Clinton, Oneida County, and extending thence northerly to the terminus of said Rome Branch in the City of Rome, Oneida County, a distance of about 12.80 miles.

SEGMENT NO. 18. That part of the railroad right of way of the New York, Ontario and Western Railway Company commencing at a point 900 feet southerly of the center line of Walnut Street in the City of Oneida, Madison County, extending thence northerly to the southerly line of Maple Avenue (sometimes called Swamp Road), about Valuation Station 13,629 + 0, in the Town of Volney, Oswego County, a distance of about 44.03 miles, including the so-called Oneida Yard and all improvements thereon, (excluding personal property listed in Part III hereof).

SEGMENT NO. 19. That part of the railroad right of way of the New York, Ontario and Western Railway Company, commencing at the southerly line of Maple Avenue (sometimes called Swamp Road) at about Valuation Station 13,629 + 0 in the Town of Volney, Oswego County, and extending thence northerly to the terminus of the main line at the northerly line of East Cayuga Street in the City of Oswego, Oswego County, a distance of about 13.35 miles, including the so-called Fulton Yard with all improvements thereon (excluding personal property listed in Part III hereof), but not including any part of the so-called dock property of the railroad in the City of Oswego, hereinafter described as SEGMENTS NOS. 20 and 21.

SEGMENT NO. 20. Certain lands situate in the second ward, City and County of Oswego, consisting of approximately 12 acres, all as referred to by the Inland Lakes to Sea Terminal Corporation in a Deed dated July 23, 1923, recorded in Oswego County, Book 331, page 148, and by the State of New York in Parcel No. 1 and Parcel No. 2 described in Letters Patent dated December 15, 1944, and recorded in Oswego County, Book 430, page 566, and all improvements thereon, consisting principally of 4 warehouses and sundry tracks, but excluding therefrom approximately 0.83 acre outside the New East Harbor Line along the western boundary of the aforesaid land which was conveyed by the New York, Ontario and Western Railway to the City of Oswego by Deed dated June 21, 1935.

SEGMENT NO. 21. Certain lands in the City and County of Oswego, lying adjacent to and northerly of the lands identified in SEGMENT NO. 20, consisting of about 21 acres of land, partly under water, being the so-called Grampus Bay property, referred to (1) by A. E. Mathews and wife in a Deed dated June 14, 1926, (2) by the City of Oswego in a Deed dated June 17, 1935, (3) by the State of New York in Parcel No. 3 described in Letters Patent dated December 15, 1944, all recorded in the County of Oswego, Book 344, page 225, Book 380, page 393, and Book 420, page 566, respectively, and all improvements, consisting of sundry tracks, thereon.

SEGMENT NO. 22. All the right, title and interest, if any, of the Receivers in certain surface land only situate in the Borough of Duryea, Luzerne County, Pennsylvania, comprising about 10.8 acres, and lying between the so-called Austin Branch of the Lehigh Valley Railroad and the Lackawanna River, all as intended to be conveyed by C. Reynolds Bedford and Charles Dorrance, the Receivers in Equity of the Temple Coal Company, by a Deed dated April 24, 1934, recorded in Luzerne County, Pennsylvania, in Book No. 737, page 23, together with all tracks of the Receivers thereon.

Included in the foregoing respective segments of railroad rights of way are all lands, buildings, tracks, bridges, tunnels, wires, signals, station houses, shops, all other fixed improvements thereon and physical personal property located therein or thereon (excluding personal propety listed in Part III hereof), together with all appurtenances, erections and structures necessary or appurtenant to or used in the operation of said segments of right of way, as well as offline or outlying parcels of real property not directly connected with the operation of said segments to the extent that the same are located within the extremities of a given segment.

Included with the railroad right of way of the Ontario, Carbondale and Scranton Railway Company, and to the extent that the same are located within the extremities of a given segment thereof, is any and all coal on the surface and forming embankment thereon as stated in Schedule IV, annexed hereto and made a part hereof.

Part III
Sale of Personal Property

A bid for the entire parcel of each of the following parcels of personal property is invited. In the alternative, bids for one or more of the items offered in each parcel is invited, except where otherwise indicated.

Parcel No. 1. All of the personal property listed in Schedule No. 1 annexed hereto and made a part hereof. **The property comprising this parcel is also offered as part of the entire system in Part I above.**

Parcel No. 2. All of the road department materials and supplies listed in Schedule II annexed hereto and made a part hereof.

Parcel No. 3. All of the motive power material and supplies listed in Schedule No. III annexed hereto and made a part hereof.

Parcel No. 4. Passenger train car Number 30. (Business car).

II. TERMS AND CONDITIONS

1. Sealed bids must be delivered personally or by United States mail to the Receivers, in care of Satterlee, Warfield & Stephens, counsel for the Receivers, at 460 Park Avenue, New York 22, N. Y., not later than 3:00 P.M., Eastern Daylight Saving Time on June 24, 1957. The outside envelope must be marked "Bid—NYO & W".

2. Bids for the whole system as described in Part I of the Notice of Sale must be accompanied by a certified or bank cashier's or treasurer's check in New York funds payable to James B. Kilsheimer III and Jacob Grumet, as Receivers, in the amount of Five Hundred Thousand Dollars ($500,000) or ten per cent (10%) of the amount of such bid, whichever is higher. Bids for any property described in Part II or Part III of said Notice of Sale shall be accompanied by a separate certified or bank cashier's or treasurer's check in New York funds payable to James B. Kilsheimer III and Jacob Grumet, as Receivers, in an amount equal to 10% of the amount bid for such property. If any bid for any such property shall be accepted and approved, the bidder must deliver to the Receivers within 5 days after such acceptance and approval a separate bank cashier's or treasurer's check in New York funds, payable to said Receivers, as aforesaid, in an amount equivalent to an additional 10% of the amount bid for such property.

3. Such bids shall be executed in duplicate and shall be in the following form:

"To James B. Kilsheimer III, and Jacob Grumet, Receivers.

Sirs:

Receipt is acknowledged of a copy of the Notice of Sale dated May 20, 1957.

The undersigned hereby offers to purchase, subject to the order of this Court and the terms and conditions of the Notice of Sale, the following:

(Here describe and list with particularity and with reference to each bid the property or properties for which bid is made, with reference to the Notice of Sale.)

There is handed to you herewith a certified check [or bank cashier's or treasurer's check] in New York funds, to your order, being the amount required under said Notice of Sale in connection with the offer hereby made.

Yours very truly,

_____

Accepted— , 1957

_____

_____

Receivers"

4. Such sealed bids shall be opened at United States Court House, Foley Square, New York City, N. Y., Room 618, before the Court at 10:00 A.M., Eastern Daylight Saving Time, on June 25, 1957, or on such later hour and day to which the Court may adjourn the sale. The nature and the amount of such bid shall be announced in open court at such time and place.

5. Persons who have not submitted sealed bids shall be entitled upon furnishing a deposit in the form and the amount specified under Paragraph 2 above, to bid orally in open court for any of the properties mentioned in this Notice of Sale.

6. Any person who has submitted a sealed bid shall be entitled orally to improve his bid or make another bid, upon furnishing such additional deposit as will comply with the requirements contained in Paragraph 2, above.

7. The most favorable bid or bids shall then and there be determined by the Court and if any thereof shall be a bid other than a sealed bid previously submitted, the successful bidder or bidders will be required then and there to sign a form of bid, as set forth in Paragraph 3, or to amend previously submitted forms of bid accordingly.

8. The deposits of unsuccessful bidders shall be returned to them promptly by the Receivers.

9. The Court by the terms of its order and of this Notice of Sale reserves jurisdiction to reject any and all bids.

10. The deposits of the bidder or bidders whose bid is accepted will be held (and the checks therefor deposited for clearance) by the Receivers for application against the purchase price, and in case of default of any payment, the deposit shall be retained as liquidated damages. A duplicate of each bid which is accepted shall be signed by the Receivers to indicate such acceptance and delivered to the successful bidder, which acceptance shall be subject to confirmation by the Court.

11. Personal property is sold "as and where is."

12. The time and place of the closing of all property to be conveyed or delivered hereunder shall be at 10:30 A.M., Eastern Daylight Saving Time, on September 10, 1957, or at such later date as may be agreed by the parties or fixed by the Court, at such place as shall be designated by the Court or agreed upon by the parties, at which time and place the balance of the purchase price shall be paid by certified or bank cashier's or treasurer's check in New York funds to the order of James B. Kilsheimer III and Jacob Grumet, as Receivers. There will be customary apportionment of rents for that portion of the term of leases, if any, which extend beyond the time of delivery of deed or deeds.

13. The deed or deeds of real property and the bills of sale of personal property to be conveyed shall contain no covenants, warranties or representations by the Receivers (and may contain an affirmative negation of any covenant, warranty or representation) and shall be duly executed by the Receivers at their own cost and expense so as to convey, free from liens, only the right, title and interest of the Receivers, subject to: such state of facts as an accurate survey or surveys may show; covenants, easements, restrictions, conditions, reversions and agreements affecting the property conveyed. All taxes imposed by any lawfully constituted authority upon or in connection with the transfer of real property (including, without limiting the generality of the foregoing, United States, state, or local documentary stamp taxes) shall be paid by the successful bidder or bidders.

14. The Court may adjourn the sale or cause the same to be adjourned from time to time by oral announcement of such adjournment at the place appointed for the sale or for such adjourned sale, and without further notice of publication the Court may proceed with the sale on any day to which the sale may have been adjourned.

15. The properties, both real and personal, to be sold may be inspected by intending bidders subject to such reasonable regulations as the Receivers may prescribe.

16. The proceeds of sale shall be applied at the time and in the manner the Court shall direct and the Court reserves jurisdiction over all matters provided for herein, including specifically and without limiting the generality of the foregoing, jurisdiction to approve or disapprove the acceptance of any bid or bids whether or not the same shall comply with the terms set forth in the Notice of Sale and in the order of the Court, and the Court further reserves jurisdiction to make such orders and pass upon or determine the questions which may arise in connection with such sale as may be appropriate.

Dated: New York, N. Y.
May 20, 1957

JAMES B. KILSHEIMER, III and
JACOB GRUMET, as Receivers for
NEW YORK, ONTARIO AND WESTERN RAILWAY COMPANY
ONTARIO, CARBONDALE AND SCRANTON RAILWAY COMPANY
ELLENVILLE AND KINGSTON RAILROAD COMPANY
PORT JERVIS, MONTICELLO AND SUMMITVILLE RAILROAD COMPANY
PECKSPORT CONNECTING RAILWAY COMPANY

SCHEDULE NO. 1

	No. of Units
(a) One heating tender for heating passenger cars	1
(b) Serviceable train cars	
Item 1—Hoppers	21
" 2—Cabooses	31
	52
(c) Unserviceable train cars	
Item 1—Box	3
" 2—Flat	1
" 3—Gondolas	9
" 4—Hoppers	7
" 5—Cabooses	2
" 6—Work	106
" 7—Passenger	6
	134

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(d) Automobiles and Trucks

Item 1—1938 International 2½ ton truck 1
" 2—1951 Willys Autoraller 1
" 3—1950 Dodge Sedan 1
" 4—1950 Dodge Sedan 1
" 5—1951 Chevrolet Station Wagon 1
" 6—1953 Chevrolet 1½ Ton Truck 1
" 7—1949 Pontiac Sedan 1
" 8—1949 Plymouth Sedan 1
" 9—1949 Oldsmobile Sedan 1
" 10—1951 Chevrolet 2-Ton Truck 1
" 11—1951 Chevrolet Sedan 1
" 12—1949 Buick Sedan 1
" 13—1953 Chevrolet 1½ Ton Truck 1
" 14—1953 Chevrolet Suburban 1
" 15—1947 Cadillac Sedan 1

15

(e) Machines and Tools at Middletown, New York, Machine Shop—

Item 1—30" Lathe American 10-16-11 American Tool Works Co. 1
" 2—6' x 18" Lathe 11-3-11 Lodge and Shipley 1
" 3—42" Lathe 2-24-93 Pond Machine Tool Co. 1
" 4—Milling Machine 11-3-11 Cincinnati Milling Mach. Co. 1
" 5—24" Shaper 11-18-11 Gould and Eberhardt 1
" 6—6" Radial Drill Ridgeway 9-11-11 Niles, Bement Pond Co. 1
" 7—Grinder Universal #1 9-28-11 1
" 8—2 Spindle Speed Drill 10-16-11 1
" 9—Double Emery Grinder #2 10-16-11 Bridgeport Safety Emery Wheel Co. 1
" 10—Double Emery Grinder 12-6-99 L. Best 1
" 11—Portable Lathe 16" x 6' 11-3-11 Lodge and Shipley 1
" 12—1½ Tripple Bolt Cutter #8329 11-23-12 Acme Machinery Co. 1
Item 12a—Electric Traveling Crane 100 Ton 1911 Morgan Engr. Co. 1
" 13—Electric Traveling Crane 10 Ton 1911 Morgan Engr. Co. 1
" 14—Electric Traveling Crane 5 Ton 1911 Morgan Engr. Co. 1
" 15—Traveling Air Hoist 1907 NYO&W 1
" 16—Hydraulic Wheel Press 2-9-20 South-Work Fdy. and Mach. Co. 1
" 17—Lathe 42" Car Wheel 2-7-23 Wm. Sellers Co. 1
" 18—Turret Lathe 36" Vertical 12-30-22 Bullard Tool & M. Co. 1
" 19—8' Chicago Steel Brake 6-40 Federal Mach. Exchange 1
" 20—Electric Hoist for Lye Vat 8-23 Manning M. & M. 1
" 21—Tripple Valve Grinding Mach. 8-23 Automatic Valve Grinding Mach. Co. 1
" 22—48" Car Wheel Borer 8-23 Niles, Bement Pond Co. 1
" 23—Hydraulic Bushing Press 8-23 1
" 24—Planer 36x36x12 4-8-25 Manning M & M 1
" 25—72" Vertical Boring and Turning Mill 4-17-33 Niles Tool Works 1
" 26—Turrett Lathe 24 Universal 3-17-33 Warner and Swasey Co. 1
" 27—Arc Welding Generator Set 6W D23A45 Serial 1671043 11-21-33 G. E. Co. 1
" 28—Arc Welding Generator Set 6W D34A13 Serial 1695240 1-6-36 (Welding Engineering Sales Corp.) 1
" 29—Elwood Parker Electric Truck 6-32 2
" 30—Combined Axle and Jnl. Truing Lathe 9-40 Consolidated Mach. Tool Corp. 1
" 31—Hack Saw 4-44 J. T. Ryerson
" 32—Arc Welding Generator Set 6W D36B489 Serial 1887176 1942 G. E. Co. 1
" 33—Hydraulic Wheel Press 12-45 Chambersburg Engr. Co. 1
" 34—Arc Welding Generator Set 6W D23A986 Serial 1668389 G. E. Co. 1
" 35—Electric Oven Westinghouse 1
" 36—Battery Charger G. E. Co. 1
" 37—AB Valve Test Rack WAB Co. 1
" 38—Loco. Valve Test Rack 1
" 39—Tinsmith Squaring Shears 1
" 40—EMD Cylinder Liner Honer 1
" 41—GE Rectifier A-C to D-C 1
" 42—Sioux Cylinder Valve Grinder 1
" 43—Pipe Bender 1
" 44—Tinsmith Roller 1
" 45—Diesel Brake Test Rack 1
" 46—#3 Monograph Gas Shape Cutting Mach. with Acces. Serial No. 266 3-14-51 Air Reduction Corp. 1
Item 47—Magnaflux Serial No. 49026 Type XR 192 May 1949 Magnaflux Corp. 1
" 48—Magnaglow Serial No. 49025 May 1949 Magnaflux Corp. 1
" 49—Misc. Hand Tools
" 50—1 General Electric Rectifier No. B 336870 K. V. A. 1

Boiler Shop

Item 1—Combined Punch and Shears #2 2-18-92 Hilles and Jones 1
" 2—12' Rolls 3-14-93 Hilles and Jones
" 3—Flanging Clamp 8-30-04 J. H. Optenberg 1
" 4—40-Ton Electric Traveling Crane 8--07 Shaw Elec. Crane Co. 1
" 5—Double Emery Grinder—10 Tonite Co. 1
" 6—Orr & Sembower 15 HP Power Master 125# Steam Generator Serial No. 4901536 9- -49 Orr & Sembower 1

(f) Track Motor Cars

	Type of Car	Series	Total
Item 1	Fairmount	M-19	22
" 2	"	A3-D	1
" 3	Fairbanks-Morse	40-B	4
" 4	" "	55	1
" 5	Fairmount	St-2	20
" 6	"	M-2	9
" 7	"	MT-2	4
" 8	"	M-25	1
" 9	"	M-52	2
" 10	"	MT-14	2
" 11	"	A-5-C	1

67

(g) Roadway Machines and Maintenance Tools—

Item 1—American Railway ditcher, No. SD7, 1944 1
" 2—Caterpillar Diesel type tractor (Bulldozer) Model D4, 1942 1
" 3—Fairmont A5 series C gang Car 1
" 4—1944 Arc welder, General Electric 300 ampere with trailer and welding cables, 1947 1
" 5—Grouting outfit, Fairmont, with mixing unit, water tank and pump, 1948 1
" 6—Tamper compressor, portable air cooled, Model 60, 1946 1
" 7—Tie tampers, Barco gasoline, type TT4, 1943 2
" 8—Tie tampers, Barco Gasoline, type TT2, 1940 5
" 9—Nordberg power jack, hydraulic, 1946 1
Item 10—Nordberg track power wrench, Model DW, 1946 1
" 11—Impact wrench, rotary, No. 365 RP, 1943 1
" 12—Sickle bar mowers with snowplow attachments, Worthington, 1946 1
" 13—Rail and switch point grinder, Keystone Universal, 1939 1
" 14—Rotary Pneumatic saw, Thor, PS-13, Model 4882, 1943 1
" 15—Rotary Pneumatic saw, Ingersoll Rand, Size B-12, 1943 1
" 16—Power bonding drilling machines, Everett, 1934 2
" 17—Ingersoll Rand #PB-8 Paving Breaker, 1949 1
" 18—Chicago pneumatic #CP-117 Spike Driver, 1953 1
" 19—Brushmaster saw, 1953 1
" 20—Northwestern #540A Rail & Frog Grinder, 1951 1
" 21—Nordberg Model UG Utility Grinder, 1956 1
" 22—Electric Generating Plant 1

28

(h) Equipment—Blue Print Room, Middletown, N.Y.

Item 1—Bruning Copyflex Print Machine 1
" 2—Rectograph (Photostat) Machine 1
" 3—Paragon Dryer 1
" 4—Drawing Table 3' x 4' 1

4

SCHEDULE NO. II

Road Department Materials and Supplies located in Middletown Yards.

Item 1—C.T.C. Equipment, Union Switch and Signal Co. including train despatching traffic control machine.
" 2—Interlocking and Signal material
" 3—Telegraph and Telephone materials
" 4—Second-hand Relayer Rail

SCHEDULE NO. III

Motive Power Material and Supplies located in Middletown Yards—

Item 1—2 Diesel trucks — used — Complete with Traction Motors (D-7, 12 tooth pinion)
" 2—5 Traction Motors—used—with Armatures (D-7 12 tooth pinion)
" 3—1 Traction Motor Armature—used—(D-7, 12 tooth pinion)
" 4—All other Diesel locomotive parts
" 5—Wheels and Axles

SCHEDULE IV

The Receivers are informed that there is surface coal, and coal forming embankment on the right of way of the Ontario Carbondale and Scranton Railway Company as hereinafter indicated. The Receivers make no warranties or representations whatsoever with regard to the quantity, quality, accessibility, location or otherwise of such coal. The following information obtained from records of the railroads in possession of the Receivers is offered for information of bidders:

	Approximate Tonnage
1. Mile Post 164—Jones Trestle	50 to 60,000 tons
2. Mile Post 176.5—Poyntelle	40,000 tons
3. Mile Post 177.5	70,000 tons
4. Mile Post 180	10 to 15,000 tons
5. Mile Post 180.8—Bennet's Crossover	30,000 tons
6. Mile Post 181.8—	20 to 25,000 tons
7. Mile Post 185—Corey's Curve	25 to 30,000 tons
8. Mile Post 185.8	10 to 12,000 tons
9. Mile Post 186.0	15,000 tons
10. Mile Post 186.3 to 186.4	20 to 25,000 tons
11. Mile Post 186.6 to 186.9	40,000 tons
12. Mile Post 187 to 187.3	35,000 tons
13. Mile Post 189	2,000 tons
14. Mile Post 190.5—Forest City	7 to 8,000 tons
15. Mile Post 191.3 to 191.6	30,000 tons
16. Mile Post 192	30,000 tons
17. Mile Post 193.2—Northwest Jct.	12 to 15,000 tons
18. Mile Post 195 to 195.5	20,000 tons
19. Mile Post 196—Carbondale Yard	10,000 tons
20. Mile Post 200.0—Mayfield Yard—South end of yard	20,000 tons
21. Mile Post 201.8 to 201.9—Near Switch leading to Jermyn Transfer	1,000 tons
22. Mile Post 202.3	800 to 1,000 tons
23. Mile Post 206.6 to 207.5 Pecksville to Mid-Valley	60 to 70,000 tons
24. Mile Post 208—Mid Valley Switch	30 to 40,000 tons
25. Mile Post 209.5—Dickson Yard	40,000 tons
26. Mile Post 209.6 to 210.0—Dickson Yard to Bridge over D&H tracks	30,000 tons
27. Mile Post 210.0 to 210.9	50,000 tons
28. Mile Post 210.9 to 211.6	20,000 tons
29. Mile Post 213.1 to 213.5	10,000 tons
Riverside Branch	
30. Mile Post 206	30 to 40,000 tons
Copeouse Branch	
31. Mile Post 210	400 tons
32. Mile Post 214	40 to 50,000 tons
33. Mile Post 214.2	50 to 60,000 tons
34. Mile Post 214.9	30,000 tons

ADVERTISEMENT

(Continued from page 17)

Operation of terminals, at 40th Street yard in Chicago and at Westminster avenue in East St. Paul, will be handled by the Rail-Trailer Company under an agreement with the motor carrier group. Special 75-ft roller-bearing flat cars, capable of carrying two truck trailers each, will be provided by the Trailer Train Company.

C&NW also has inter-line agreements with about 10 eastern railroads, some of which handle common-carrier truck trailers. It was indicated, however, that the new Chicago-Twin Cities trains will provide common-carrier service only for the Illinois-Minnesota Conference group.

Organizations

American Short Line Railroad Association.—A meeting of Southern Region members will be held in the Hotel Dinkler-Plaza, Atlanta, at 9:30 a.m., June 19.

Medical and Surgical Section, AAR.—Dr. Ira Goldowsky, medical director, Jersey Central Lines, elected chairman.

Military Railway Service Veterans.—The 12th annual reunion will be at the Dinkler-Plaza Hotel, Atlanta, Ga., September 13-15.

National Defense Transportation Association, Philadelphia Chapter.—Harold J. Fink, general agent, Norfolk & Western, elected president.

Pacific Coast Shippers Advisory Board.—The 103rd regular meeting will be held in the Biltmore Hotel, Los Angeles, June 13-14.

Rail Freight Traffic Association of Milwaukee.—Newly elected officers are: President, Patrick L. Mehlick, district freight representative, Baltimore & Ohio; vice-president, G. F. Mueller, general agent Santa Fe; secretary-treasurer, E. S. Rogers, Jr., regional sales manager, Soo Line.

Railroad General Agents Association of Seattle.—Wallace G. Wiley, district freight agent, Canadian Pacific, has been elected president; Joseph D. Given, general agent, Lackawanna, vice-president; and Walter P. Coleman, Jr., general agent, Chicago & Eastern Illinois, secretary-treasurer.

Transportation Department, YMCA.—The International Summer Institute will be held at Silver Bay, N.Y., June 23-28. Paul W. Milburn, traveling secretary at Washington, D.C., will be dean of the institute, with J. W. Winterhalter, traveling secretary, as his assistant.

Sale of Diesel-Electric Locomotives

under

New York, Ontario and Western Railway

Equipment Trusts of 1945 and 1947

June 25, 1957

Pursuant to an order of the United States District Court for the Southern District of New York, filed in the office of the Clerk of said Court on May 13, 1957, in the cause entitled *United States of America v. Louis D. Freeman, Trustee, etc., et al.* (Civil Action 116-204), the undersigned will sell at public sale at the United States Court House, Foley Square, New York City, on June 25, 1957, at 10:00 o'clock in the forenoon, Eastern Daylight Saving Time, or at such later hour and day to which such sale may be adjourned, the property in said order described and therein authorized to be sold, to which order reference is made for the terms of sale and for a description of said property, which consists of diesel-electric locomotives built by General Motors Corporation and covered by the above described Equipment Trusts, as follows:

9 2,700 h.p. freight locomotives each consisting of 2 units of 1,350 h.p.;
7 1,500 h.p. freight locomotives each consisting of 1 unit; and
21 1,000 h.p. switching locomotives.

Said freight locomotives are presently located at the New York, Ontario and Western Railway Middletown yard at Middletown, N. Y., and said switching locomotives are presently located at the New York Central Railroad Selkirk yard at Selkirk, N. Y.

Copies of the required Form of Bid, together with the Invitation to Bid and said order, may be obtained from, and arrangements for the inspection of said locomotives prior to sale may be made with, The Hanover Bank (Mr. J. T. Harrigan, Senior Vice President), 70 Broadway, New York 15, N. Y., or Jacob Grumet and James B. Kilsheimer, III, Receivers of the property of New York, Ontario and Western Railway Company, 39 Broadway, New York, N. Y.

THE HANOVER BANK,
Trustee of said Equipment Trusts.

Dated, May 15, 1957.

Financial

Applications

ALABAMA GREAT SOUTHERN.—To assume liability for $2,400,000 of equipment trust certificates to finance in part the acquisition of 300 box cars from Pullman-Standard Car Manufacturing Company. Estimated unit cost of the cars is $10,200, the estimated total cost being $3,060,000. The certificates would mature in 20 semiannual installments of $120,000 each, beginning next December 15. They would be sold by competitive bids, which would fix the interest rate.

ERIE.—To assume liability for $2,925,000 of equipment trust certificates to finance in part the acquisition of 400 freight cars from the Greenville Steel Car Company at an estimated total cost of $3,759,700. Included would be 300 gondola cars (with skids and steel covers for coil and sheet loading) costing an estimated $8,449 each, and 100 covered hopper cars equipped with roller bearings at $11,250 each. The certificates would mature in 15 annual installments of $195,000 each, beginning July 15, 1958. They would be sold by competitive bids which would fix the interest rate.

GULF, MOBILE & OHIO.—To assume liability for $3,030,000 of equipment trust certificates to finance in part equipment, listed below, expected to cost a total of $3,823,700.

	Description and Builder	Estimated Unit Cost
250	box cars (Pullman-Standard Car Manufacturing Company)	$ 8,800
100	covered hopper cars (Greenville Steel Car Company)	10,462
50	gondola cars (ACF Industries, Inc.)	9,300
10	tank cars (Bethlehem Steel Company)	11,250

The certificates would mature in 30 semiannual installments of $101,000 each, beginning January 1, 1958. They would be sold by competitive bids, which would fix the interest rate.

MONON.—To issue $8,467,825 of 6% income debenture bonds and 169,356½ shares of Class B common stock to be offered in exchange for the 338,713 shares of Class A common now outstanding. The exchange basis would be $25 of the debentures and ½ share of Class B stock for each share of Class A and accrued dividends thereon. The plan is designed to simplify the applicant's financial structure and pave the way for payment of dividends on the Class B stock. Unpaid dividends on the Class A stock now total $3.53 per share.

NEW YORK CENTRAL.—To assume liability for $6,450,000 of equipment trust certificates to finance in part the acquisition of 1,000 freight cars at an estimated total cost of $8,225,000. Included would be 500 hopper cars acquired from General American Transportation Corporation at $8,400 each, and 500 box cars built in Despatch Shops at $8,050 each. The certificates would mature in 15 annual installments of $430,000 each, beginning July 1, 1958. They would be sold by competitive bids which would fix the interest rate.

NORFOLK & WESTERN.—To assume liability for $4,320,000 of equipment trust certificates, first installment of a proposed $12,900,000 issue, the whole of which would finance in part the building of 2,000 hopper cars in its own shops. Estimated total cost of the equipment is $17,200,000, the estimated unit cost being $8,600. The certificates would mature in 30 semiannual installments beginning December 1. They would be sold by competitive bids which would fix the interest rate.

Dividends Declared

ATCHISON, TOPEKA & SANTA FE.—5% preferred, 25c, semiannual, payable August 1 to holders of record June 28.

DELAWARE & HUDSON.—50c, quarterly, payable June 28 to holders of record June 11.

DENVER & RIO GRANDE WESTERN.—62½c, quarterly, payable June 17 to holders of record June 7.

ERIE.—37½c, quarterly, payable June 30 to holders of record June 7.

KANSAS CITY SOUTHERN. — common, 75c, quarterly, 25c, extra, payable June 15 to holders of record June 4; 4% preferred, 50c, quarterly, payable July 15 to holders of record June 28.

NORTHERN CENTRAL.—$2, semiannual, payable July 15 to holders of record June 28.

READING.—4% second preferred, 50c quarterly, payable July 11 to holders of record June 20.

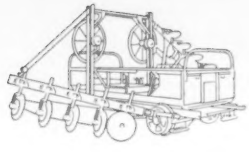
RICHMOND, FREDERICKSBURG & POTOMAC.—common, $1, quarterly; dividend obligation $1, quarterly, both payable July 1 to holders of record June 20.

UNION PACIFIC.—30c, quarterly, payable July 1 to holders of record June 10.

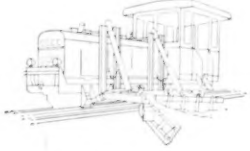
W23 SERIES A BALLAST MAINTENANCE CAR can be equipped with center plow, track brush, adjustable ballast equalizing boxes, scarifiers and discs. 4-wheel drive torque converter and hydraulic tool control.

When you think of
BALLAST MAINTENANCE
. . . think first of **Fairmont**

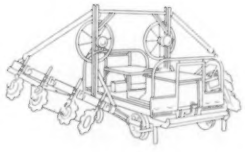
W62 SERIES C BALLAST DISCER reworks shoulder ballast, improves drainage and appearance, reshapes shoulders. Has six-cylinder engine.



W77 SERIES A BALLAST MAINTENANCE CAR can mount center plow, ballast equalizing boxes, scarifiers, discs, and two sizes of blades. Has four-wheel propeller shaft drive and hydraulic tool control.



M25 SERIES D BALLAST DISCER loosens shoulder ballast for better drainage, reshapes them for improved appearance. Engine has four cylinders.



Economical maintenance of track ballast demands the use of the most productive and time-saving machines. That is why more and more supervisors are using the Fairmont equipment shown on this page. These units are well able to perform a wide variety of necessary jobs in the shortest possible time. To obtain greater speed and efficiency . . . easy, thorough operation . . . and economical, sturdy equipment for your ballast maintenance operations, call on Fairmont.

FAIRMONT RAILWAY MOTORS, INC., FAIRMONT, MINN.

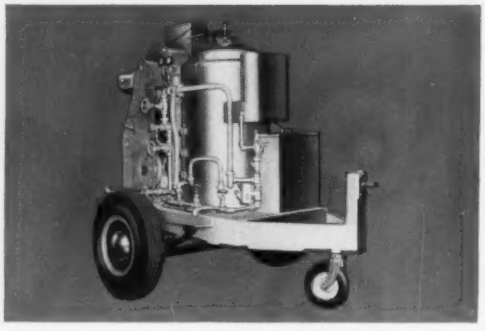
MANUFACTURERS OF BALLAST MAINTENANCE CARS, DERRICK CARS, OIL SPRAY CARS, GROUTING OUTFITS, TIE RENEWAL EQUIPMENT, RAIL RENEWAL EQUIPMENT, WEED CONTROL EQUIPMENT, HY-RAIL CARS, TRACK MOTOR CARS, PUSH CARS AND TRAILERS.

Never far from the door, one man can upgrade a car in about 15 minutes. High pressure hot water blasts dirt out of cracks and corners no brush could ever reach.

30 cars a day (per man) back in top revenue service with fast VAPOR UPGRADER cleaning

UPGRADES FREIGHT CAR REVENUE

All traces of lime and cement washed away and no odor left. It took one man only 20 minutes to make this car acceptable for hauling grain. Even hide cars can be upgraded with Vapor Blast Washing.



On three wheels or four wheels, with skids or on a rigid base for truck or wheeled platform mounting, Upgraders can be moved easily. Wherever steam cleans, Upgrader saves money.

Freight cars go back into service sooner—and often higher-revenue service—after quick, inexpensive Water Blast Cleaning with a Vapor Upgrader Senior. For an average of less than a dollar per car, railroads achieve greater utilization of equipment, ease their freight car shortage.

Heart of the system is a Vapor high capacity, high recovery boiler. This supplies high pressure steam to a high pressure injector where the steam jet induces a water stream of 1500 gph at 180° F. and 250 psi. The hot, high pressure steam then is delivered at 175 fps for high velocity scouring.

Under this torrent of hot water, dirt and encrustations are literally blasted loose and flooded away, yet neoprene or other sealant finishes commonly used on car interiors are unaffected.

When detergents are used with the Upgrader, stubborn oil and grease can be so thoroughly washed out that floor boards need not be removed even if the car is to be used for hauling wheat or sugar.

A typical railroad's experience with Vapor Upgrader Blast Washing, compared with previous hand-scrub method.

	Scrub Brushes & Cold Water	Upgrader 180° F. Blast Washing
Hours required to clean one car	2.5 (3 cars per day per man)	.25 (30 cars per day man plus Upgrader)
Cost Per Car:		
Labor	$5.50	$0.55
Fuel	nil	0.332 or less
Water	0.023 or less	0.023 or less
Amortization & Maintenance	nil	0.075 or less
Total cost per car	$5.52 or more	$0.98 or less

Considering the cost of brushes, buckets, water and other incidentals of hand washing, it is evident that Upgrader Blast Washing saves about 85% of the cost of cleaning cars and does a faster . . . far better job.

Get exact, detailed information about Vapor Upgrader Senior—ask for Bulletin 596A.

VAPOR HEATING CORPORATION
80 EAST JACKSON BOULEVARD • CHICAGO 4, ILLINOIS

Offices in Principal Cities

FAR-AIR® type 48RH air filters protect 85% of America's diesel locomotives

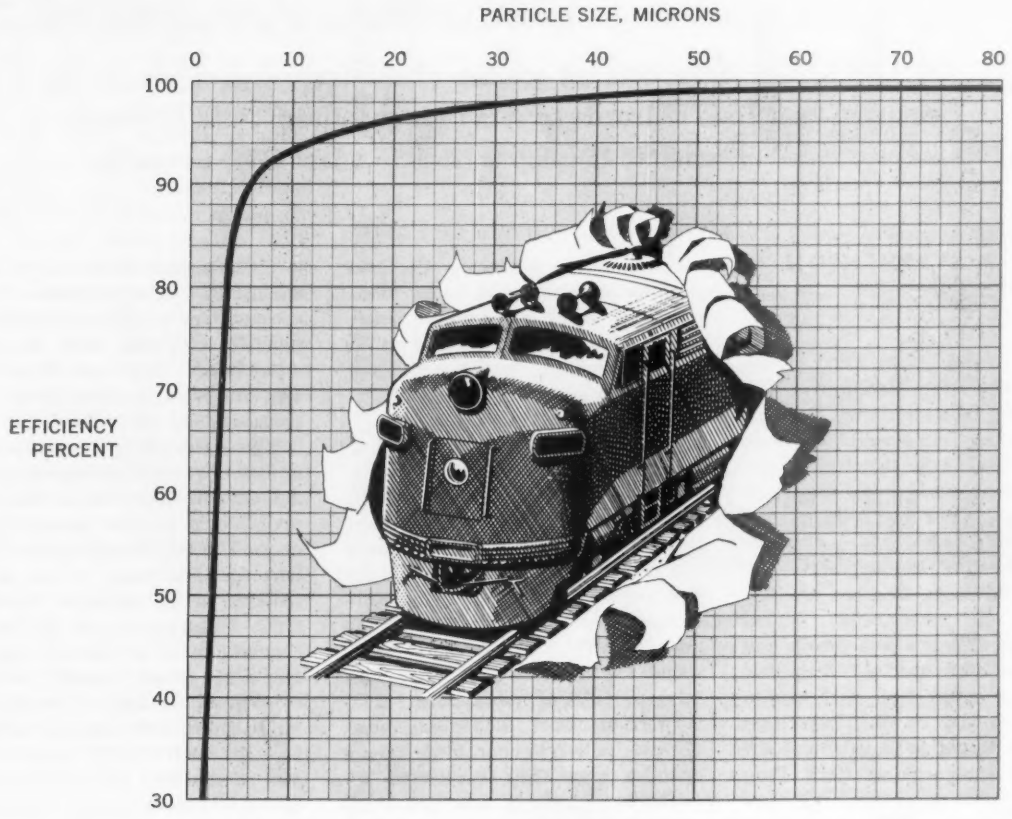


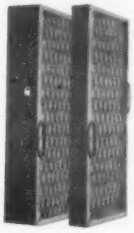
Chart showing the efficiency of the Type 48RH filter in relation to particle size.

For years Far-Air filters and other Far-Air products have been standard equipment on most of America's railroads. Far-Air Type 48RH filters were specially designed to withstand the severe operating conditions encountered in the railroad industry, and they have been recognized by both locomotive builders and users as the ideal answer to efficient car body air filtration. Millions of miles of on-the-job testing have proved that these filters operate more efficiently under all operating conditions, last longer between cleanings, require less maintenance, and have a longer service life.

The popularity of Far-Air products has not only been earned but is the result of actual specification by locomotive users. Not only have they requested the manufacturers to install Far-Air, but they have changed to Far-Air on their existing rolling stock.

To be certain that you are getting the finest in car body air filtration, be sure to specify Far-Air. If you haven't already switched to Far-Air on your present equipment, why not make the change on your next maintenance schedule?... You'll be amazed at the substantial savings and operating costs.

There is a Farr Company representative near by who will be pleased to consult with you on all your air filtration problems.



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The Clyde Engineering Co. Pty. Ltd.
Sydney, Australia
Intermit Ltd.
Birmingham, England

Here's a 'Yardstick' for CTC

PROBLEM — Railroads have not installed centralized traffic control as extensively as they could have, perhaps because there is no definite yardstick by which managements can foretell the benefits of proposed installations.

SOLUTION — Make detailed studies of the train operations on many divisions of numerous railroads to establish quantitative measurements of train interference, in order to develop a basis to adapt CTC to traffic.

By E. P. STEPHENSON
Signal Engineer (System)
Canadian National

Yesterday, talk was that diesels would replace steam locomotives. Today, many railways have achieved or are nearing full dieselization. Yesterday it was said that centralized traffic control someday would replace train orders. These two technological developments, which held such promise for the future, are long out of the experimental stage. One has received universal, the other rather limited acceptance, although both diesels and CTC have each received their fair share of a great deal of favorable publicity. Reports on CTC have been widely circulated in both trade and railway association publications. They have been accurate, detailed and carefully documented. The installations are reported as producing what was expected of them. Yet some roads, which are closest to complete dieselization, have no CTC at all, or only a few installations on heavier traffic lines. What is holding up CTC?

Not an Easy Task

The answer must be that railway managements either know that more CTC will not pay, or do not know that it will. Some installations will not pay, especially if they are too elaborate for the traffic. Decisions not to proceed with such installations are sound. On the other hand, there must be many miles of railway where CTC is warranted but the managements of the railways concerned cannot establish this to their satisfaction.

The comparatively slow rate of installing CTC is undoubtedly related to the magnitude of the task of determining, by presently available means, adequate and economically sound designs for CTC and track facility for a particular service; and the no lesser task of showing conclusively what they together will produce.

It is a frustrating experience trying to describe quantitatively what CTC and the associated track facility actually do to improve operating efficiency. This is largely because of a language inadequacy which is also reflected in the published reports on CTC. These reports are detailed, but conclusions as to designs and performance cannot always be drawn from them, and applied to other territories. Information on operations before and after CTC is installed must also be classified and correlated to be useful as a basis for new designs and forecasts of their performance.

Average standing time per PASS.

Tabulation of Average Standing Time per PASS During April 1956 on 47 Subdivisions

Average Standing Time per Pass in Minutes	Each of the 47 letters in the table below represents a corresponding subdivision T - Train orders without signaling A - Train orders with automatic block C - Centralized traffic control								
10-12	C								
12-14	C	C	C						
16-20	T								
20-22	T	C							
22-24	T	T	T	A					
24-26	T	T							
26-28	T	T							
28-30	T	T	T	T	T	T	T	T	A
30-32	T	T	T						
32-34	T	T	T						
34-36	T	T	T	T	T	T	T	T	
36-38	T	T	T						
38-40	T	T	T						
42-44	T	T							
46-48	T								
56-58	T								

Average standing time per MEET.

Tabulation of Average Standing Time per MEET During April 1956 on 47 Subdivisions

Average Standing Time per Meet in Minutes	Each of the 47 letters in the table below represents a corresponding subdivision T - Train orders without signaling A - Train orders with automatic block C - Centralized traffic control							
8-10	C	C						
10-12	C							
12-14	T	C	C					
14-16	T	A						
16-18	T	T	T	T	T			
18-20	T	T	T	T	T			
20-22	T	T	T	T	T	T	A	
22-24	T	T	T	T	T	T	T	T
24-26	T	T	T	T	T	T	T	T
26-28	T	T						
28-30	T							
30-32	T							
32-34								
34-36	T							
38-40	T							

To clarify the situation, some new terms must be introduced, defined and generally accepted. When they are accepted, information will be classifiable, and data accumulated and correlated for use through the industry. This would lead to effective reporting and better appreciation of CTC.

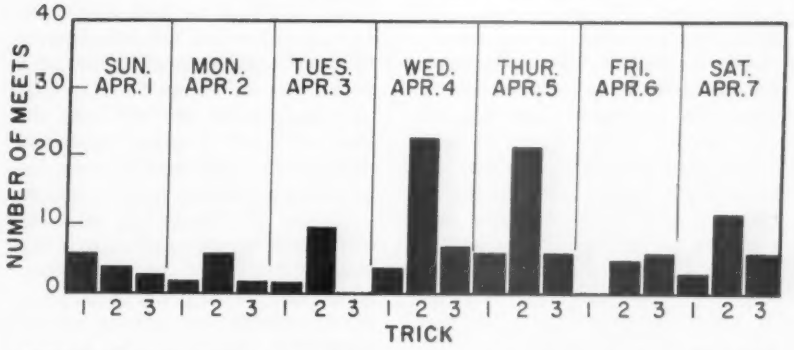
CTC should mean the same thing to everyone. Today some confusion exists because territories are sometimes called CTC and sometimes modified CTC, without reference to the track layout, particularly siding spacing. Actually CTC is a method of controlling trains. There is an endless variety of combinations of signals and track layouts, which together comprise the "fixed operating plant." Because of the variety, there seems no alternative to calling the signals and track "the fixed operating plant" or just "plant," and qualifying the term in as much detail as the circumstances call for. The purpose of the "plant" is to provide means for handling traffic so that "interference" between trains is held within tolerable bounds.

How to Measure Interference

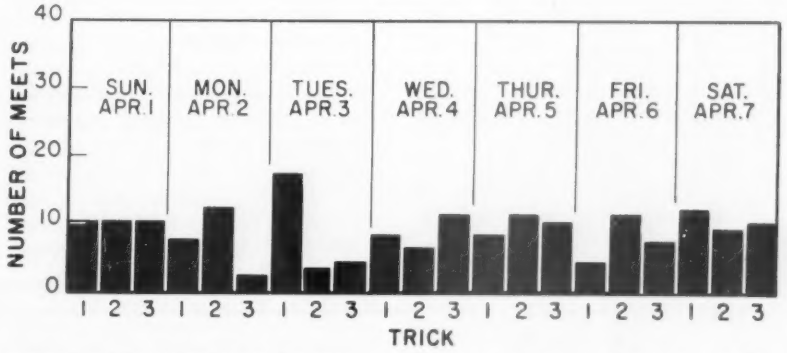
"Interference" manifests itself as delays to trains, and is particularly obvious when trains stand and wait for other trains at meets and passes on single-track lines. A quantitative analysis of interference was made on the Canadian National in April 1956 on 47 single-track subdivisions. Five of these were operated by CTC, two with train orders and automatic signals, and the remainder with train orders and no signaling. Data was collected on the number and duration of delays which occurred at meets and passes where freight trains were involved, i.e., a freight and a freight, or a freight and a passenger train.

Wide fluctuations were observed in the number of meets which occurred at different times and on different subdivisions. There are illustrated in the charts entitled "Daily Fluctuations of the Number of Meets for 8-Hour Intervals on 4 Typical Subdivisions." No relationship is apparent between train density and number of meets from these charts. Yet, as data was accumulated over the month from all subdivisions under study, a relationship became apparent. Between the limits of 19 and 20 trains per day it was observed that $N = \frac{T^2}{800}$ expresses the relationship with reasonable ac-

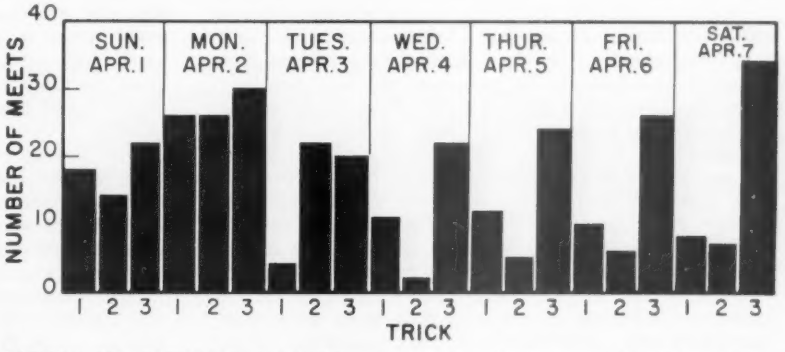
Daily Fluctuation of the Number of Meets for 8-Hour Intervals on 4 Typical Subdivisions



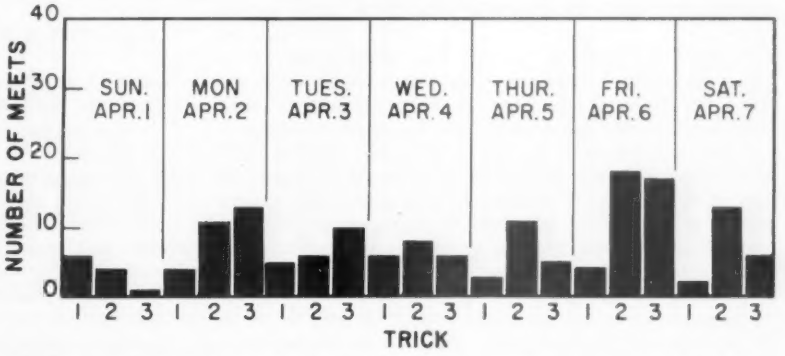
MEETS ON HUNTSVILLE Subdivision—115 miles—Average of 15 trains daily.



MEETS ON TOUCHWOOD Subdivision—129 miles—Average of 18 trains daily.



MEETS ON CARAMAT Subdivision—132 miles—Average of 14 trains daily.



MEETS ON BRULE Subdivision—106 miles—Average of 17 trains daily.

curacy, where N is number of meets involving freight trains per day per day per mile of track, and T is the total number of trains per day. Although the proportion varied, roughly two-thirds of all trains operated were freight trains. In general, authorized speed for passenger trains was 60 mph; and for freight trains 50 mph.

No relationship was observed between train density and number of passes. Very roughly there was one pass for ten meets. That part of the delays at meets and passes which appeared as "standing time" is shown in the distribution charts, as they averaged over the month, for subdivisions.

When standing time per meet "Tm" was plotted against average siding spacing "S" on CTC territory, the approximate relationship Tm = S + 5 was observed where "Tm" is the average standing time in minutes and "S" is the average siding spacing in miles. The relationship held, although the "plants" varied from (a) sidings equipped at both ends with power switches and full complements of signals with facilities for following moves between sidings to (b) sidings fully equipped at one end only, the other with only a spring switch and leave siding signal and no provision for following moves between sidings.

Plotting "Tm" against the ratio "R" of distance between sidings to siding length brought out the approximate relationship Tm = 0.6R + 7.

For example: say sidings are approximately one mile long, and the distance between sidings averages 6 miles, then

$$Tm = 0.6 \times \frac{6}{1} + 7$$

$$= 3.6 + 7 = 10.6 \text{ minutes}$$

This indicates a higher degree of precision than is at present justified; so for practical purposes the answer is approximately 11 minutes.

Plotting the standing time at passes "Tp" against "D," the average distance in miles separating following movements between sidings, brought out the approximate relationship "Tp" = 1.2D + 10. The "Tm" and "Tp" CTC territory relationships were independent of train density within the limits of the densities encountered.

The number of meets is also a function of train speeds. At infinite speed there would be no meets. Therefore if CTC reduces standing time directly by a determinable amount, effective speed between terminals is increased with no increase in running speed, and a determinable number of meets in turn will be eliminated. Delays at sidings due to hand-

(Continued on page 50)

Railroading After Hours with Jim Lynch

HOW TO ATTRACT PASSENGERS—E. V. Grosvenor, chairman of the railroads' Tariff Research Group, approves of what I said here (May 27) about the book entitled "The Hidden Persuaders." He believes all passenger people, "especially those who have coach space to sell," should make use of the information set forth in this book. He goes on to say:

"Motivation Research could teach passenger advertising men how to make America *like* coach travel—it could show passenger men what is necessary in order to teach travelers how to behave in coaches so that everyone will enjoy his trip; and it could show railroaders in general how to compete for the public's discretionary dollars. In the competition for the many *optional dollars* in our pockets, railroad travel competes with more than buses and private cars—every luxury item is a competitor. More power to you for your alert reporting."

ARTHUR PAGE, RAILROADS' FRIEND—Most people who are interested in the railroads' welfare have some direct or indirect economic concern involved—either they work for the railroads or sell to them or invest in them or need their services. But the industry also has some understanding friends whose sole motive is the public interest—and who believe that interest will be well served by improved and more prosperous railroads. Outstanding among such friends of the industry is Arthur W. Page, whose persistent and intelligent curiosity about basic railroad problems I've noted for a number of years.

Mr. Page is a director of many big companies. He retired some years ago as vice-president, public relations, of the Bell Telephone System, where he established himself at the very top of the ladder in his profession

For a long time Mr. Page has been interested in the railroads. He came independently to the conclusion that many things in the treatment they receive at the hands of the government ought to be changed. His views in this direction took concrete form in the "Cabinet Committee Report"—the "task force" for which he organized and headed.

And now he has come along with another constructive contribution to transportation—in the report on New York suburban transit (see Railway Age, May 27, page 15). Mr. Page was project director for this report, which endeavors to translate into concrete terms the idea that provision of passenger transit is, at least in part, a community responsibility, and not that of the railroads alone. The fact that men like Arthur Page are tirelessly at work affords one of the best of reasons for believing that, one of these days, public policy toward the railroads is going to become more rational and enlightened.

A FLYING V-P—At the recent security analysts' meeting in Cleveland, President Walter Tuohy of the C&O introduced the road's vice-president M. I. Dunn as the only head of a railroad operating department who had at his disposal "a Twin-Bonanza flying office car."

Several railroads, of course, have company planes and make good use of them as time-savers but this was the first time I'd heard of one being assigned directly to the head of the operating department. It wasn't many years ago that railroad men were hesitant to use planes—but their reluctance seems to be declining; and, fundamentally, I can see no disloyalty to one's own industry in using some other form of transportation when it is definitely profitable in time and money to do so.

'Champ' Davis Is Retiring

He will relinquish ACL presidency after 64 years' service.

President Champion McDowell Davis of the Atlantic Coast Line on May 29 announced his intention of retiring—thereby bringing to a close an epoch, not only on his own railroad, but for the railroad industry.

Nearing his 78th birthday, July 1, "Champ" Davis has asked the company's directors, at their next meeting on June 20, to relieve him of all his duties—as soon as his successor is ready to take them over. He has been an ACL employee for 64 years, and president since 1942. He was a prominent railroader for many years prior to becoming president—having served with distinction as head of the Coast Line's traffic department from 1928 to 1939.

Mr. Davis, a bachelor, has always been a round-the-clock and round-the-calendar railroader. The only other institution which has shared in this loyalty has been his church, where he has been one of its most prominent laymen. There is scarcely anybody in the railroad business more widely known. Mr. Davis has not been the kind of leader who follows the crowd. His opinions have been his own, and firmly held—but not to the point of permitting them to becloud his personal relationships with people on the other side of the fence.

Cushion for Hard Times

Champ Davis is proud of the physical condition of the Coast Line. In a recent address to financial analysts, he met head-on the suggestion the ACL should "reduce its maintenance ratio by five percentage points." He said:

"From a short range standpoint, there is, in my opinion, an element of value in Coast Line's present physical condition that is much more important than any prospect of an *immediate* rise in the rate of dividend, and that is the ability of Coast Line to withstand, without imperiling the *present* rate of dividend, periods of narrowing margin between revenues and expenses, such as that which commenced during the latter part of 1956."

In the same speech Mr. Davis reiterated his opposition to any material weakening of the Interstate Commerce Commission's authority over railroad rates—as proposed in the Cabinet Committee report, which was supported by most railroads. Instead of reducing ICC authority over railroad rates, Mr. Davis would prefer to extend ICC jurisdiction over carriers not now regulated.

In addition to his firm views on physical maintenance of the ACL, he has given equal attention to improvement of train schedules—passenger as well as freight. He recently said:

"On the principal double-track main line of Coast Line between Richmond and Jacksonville, the authorized maximum speed of passenger trains has been increased to 100 miles per hour when consists of trains include only roller bearing equipment and to 90 miles per hour when consists include equipment with friction bearings. The authorized maximum speed of freight trains has been increased to 65 miles per hour. Such improvements in service have been made possible only through the expenditure of large sums in modernizing and improving the physical properties of the Coast Line."

Another of Mr. Davis' main concerns has been safety of operation. For a number of years there was on display in the company's Wilmington, N.C., headquarters building, a poster which said, in substance, that ACL would not be content until it had won the Harriman Gold Medal for its safety. In 1956 the ACL received this long-coveted award.

Apart from his contribution to the physical, financial and service strength of his railroad—a major objective of Mr. Davis' in recent years has been the proposed acquisition of the Florida East Coast, a project which he recently said "is in better shape than ever before from the standpoint of Coast Line."

While there are railroad men who will not share Mr. Davis' enthusiasm for this particular project, there will be few who will withhold their admiration for his energy in pursuing it.

The railroad industry is losing one of its strong-minded individualists. Mr. Davis has been no great admirer of "ratios" when used as a yardstick to measure railroad operations—but if the quality known as personality were to be gaged by such a standard, there would be few who would rate him at less than 100.

"From a short range standpoint, there is, in my opinion, an element of value in Coast Line's present physical condition that is much more important than any prospect of an *immediate* rise in the rate of dividend, and that is the ability of Coast Line to withstand, without imperiling the *present* rate of dividend, periods of narrowing margin between revenues and expenses, such as that which commenced during the latter part of 1956."—*'Champ' Davis*

B&O LOOKS AHEAD . . .

Object: 3% Bad Orders by 1960

TO DO THIS THE ROAD IS:

- Standardizing car designs
- Changing car repair concepts
- Realigning car repair forces

The 25 new freight cars normally turned out each working day by the Baltimore & Ohio's DuBois, Pa., car shop are part of an important phase of a long-range plan to make the B&O car fleet better able to handle the road's present and future traffic.

Heavy repairs, complete rebuilding, or replacement with new cars are the most economical methods for putting a freight car fleet in condition to operate economically and to provide shippers with cars, according to the B&O. The long-range program is intended to put cars in such condition that they will not require shopping for 15 to 20 years. The program is planned to reduce the bad order ratio to 3 per cent or less by 1960.

Here are objectives of the program:

- To replace cars with new purchased cars, or to rebuild them with new material and parts, reusing only those components which are relatively modern.
- To standardize each type of car into relatively few classes, to reduce material stocks and permit the streamlining of heavy and reconditioning repair operations.
- To turn out freight cars which measure up to the highest standards; the latest car construction techniques can be utilized while making the maximum use of B&O's skilled manpower.
- To realize from this program savings which can maintain a thorough and continuing repair program to increase the number of serviceable cars.

On March 11, 1955, the B&O had 15,160 bad-order cars, or 16.8 per cent of its ownership. By Jan. 11, 1957, this had been cut to 3,282 bad-order cars—3.5 per cent. In less than two years the railroad had increased its supply of serviceable cars by 11,815.

The DuBois assembly lines for freight car building are only one phase of the B&O's new freight car program. However, the B&O classifies the DuBois car shop as the "heart" of the overall scheme which aims to increase the road's supply of serviceable equipment through systematic car building and rebuilding. This process is intended to make necessary only the lightest of repairs on these rebuilt cars during the coming years. DuBois shop was converted from an abandoned steam locomotive back shop. It was described in Railway Age, May 30, 1955, p. 30.

The DuBois shop was established to do production-line repair work prior to the adoption of the new car program. Since October 1956, it has been engaged solely in the rebuilding program. By using all of the facilities to near maximum, output has been shoved up to 25 essentially new cars each working day.

Down to Fundamentals

This output from the present plant is dependent upon the purchase of complete subassemblies from car builders. The road is concentrating almost all of its efforts on hoppers, box cars and gondolas, which collectively add up to more than 90 per cent of the B&O ownership. In the program, cars are cut down completely and only such parts as slide frames, bolsters, brake cylinders, reservoirs, retaining valves, wheels and axles are reused. Even these are closely inspected, and only the newest and latest ones are returned to service.

The assembly operations take place in four buildings—three originally used for locomotive repairs, and the fourth—an open-sided paint shop—which was built as part of the conversion. In addition, there are stores facilities, a wood mill, and an outdoor area where cars are cut down.

Actually the entire operation involves a number of B&O shops. Air brake portions are processed through the system brake shop at Cumberland, Md.; new wheels and axles come ready for application from the wheel shop at Glenwood (Pittsburgh, Pa.); truck side frames are annealed at Keyser, W. Va.; and fabricated car parts come from the B&O's bolt and forge shop at Cumberland. In addition, this high-output operation involves the plants of the major car builders. These builders are supplying or have supplied major subassemblies such as center sills, complete underframes and complete sides.

One-shift Operation

The underframe shop was formerly the boiler shop. It now houses wheel and journal lathes, a truck assembly area, blacksmith shop, pipe shop, and —in its main bay—the assembly area for hopper and gondola underframes. The four-track erecting shop has one track for the hopper car production line, one for gondolas, and two tracks for the assembly of box cars. Both of these buildings are heated during cold weather. The four tracks in the erecting shop continue on out through the paint shop.

Box cars are partially assembled outside. Underframes are placed on trucks, and sides and ends are hung on the underframes by an outside overhead crane and by locomotive cranes. These cars then move through the paint shop, and the first half of their indoor production line in the erecting shop runs counter to the general flow. The last half of this line does move in the same direction as those for the other two types of cars.

Currently nearly 700 men are engaged in these operations. This is principally a one-shift operation.

READY FOR 15 TO 20 YEARS of service after complete rebuilding at DuBois, these hoppers have been rolling off production line at the rate of ten per day. Other lines at DuBois turn out ten box cars and five gondolas daily. With complete rebuilding rather than light and medium repairs, B&O is cutting its bad order ratio.

Some equipment bottlenecks—such as the need for additional overhead crane capacity—have necessitated some second shift work. Since the shop was opened, an additional tread lathe, another air compressor and one more overhead crane have been installed to facilitate greater output.

The B&O has pursued a policy of equipping DuBois with rectifier welders from the time it was changed from a locomotive shop. This type of welding machine is now used exclusively. At the time of the conversion, DuBois got three resistance-type electric rivet heaters. These have proved so successful that the shop now has 24 of these units and plans are under way to convert it completely to this type of rivet heating. Hydraulic cold riveters are used in the assembly and application of box car roofs.

Considerable work has been done with hot paint spray and direct-to-metal paint. Building size and the large number of cars being assembled crowds and complicates materials handling, but this has not interfered with shop output. Some large subassemblies such as sides and roofs must be moved to the assembly positions each night. Attempts are made to place enough of all the smaller parts at the assembly stations to operate the production lines without restocking during the five-day work week.

Materials Handling Equipment

Stores department stocks are maintained around all the shop buildings. Movement of this material and other shop operations are conducted with the following materials handling equipment: two tractors, nine flat-top trucks and one platform lift truck, one boom and platform lift truck, four crane trucks, two 25-ton locomotive cranes and four 15-ton locomotive cranes.

All of the cars are being built with carbon steel. New car trucks are all equipped with ride control and older trucks being reused are fitted with snubbers. All cars get journal lubricators and dust-guard seals. Box cars are all equipped with lading anchors and special steel flooring in doorways. Gondolas get a B&O-designed composite wood and steel floor. Hopper cars originally built with outside stakes are being rebuilt with inside-stake side construction of the AAR design.

DuBois car shop, with its complete rebuilding operation in high gear, is not making an appreciable change in the total number of cars the B&O owns, but it is rapidly increasing the number of them ready to handle today's (and tomorrow's) traffic.

RATINGS of present diesel locomotives are in the E35 to E56 range, but other factors have to be taken into consideration in determining whether a reduction in the design loading for bridges is permissible.

AS LOCOMOTIVES BECOME LIGHTER . . .

Can Bridge-Building Costs Be Cut?

Soon after the "diesel trend" began, railroad bridge engineers began to ponder: With lighter weight locomotives, will it be possible to save money by designing new bridges with less material, inasmuch as heavy steam locomotives are passing out of the picture?

This question has been debated for several years. Mr. Bechly discusses some of the questions being raised and suggests possible answers to them.

It's not just the motive power which must be considered, he contends—it's the nature of the traffic, too. And then, who knows what the locomotive of the future will be? It could be even heavier than yesterday's "steamers."

By DAN S. BECHLY
Assistant to Engineer of Bridges
Illinois Central, Chicago

The possibility of reduction of the design loading for bridges because of the complete dieselization of many railroads is a subject with many aspects. It is a problem which I feel cannot be applied to the railroad industry, or even to any one railroad, as a whole, but must be studied in the light of the characteristics of each individual district or branch of a railroad.

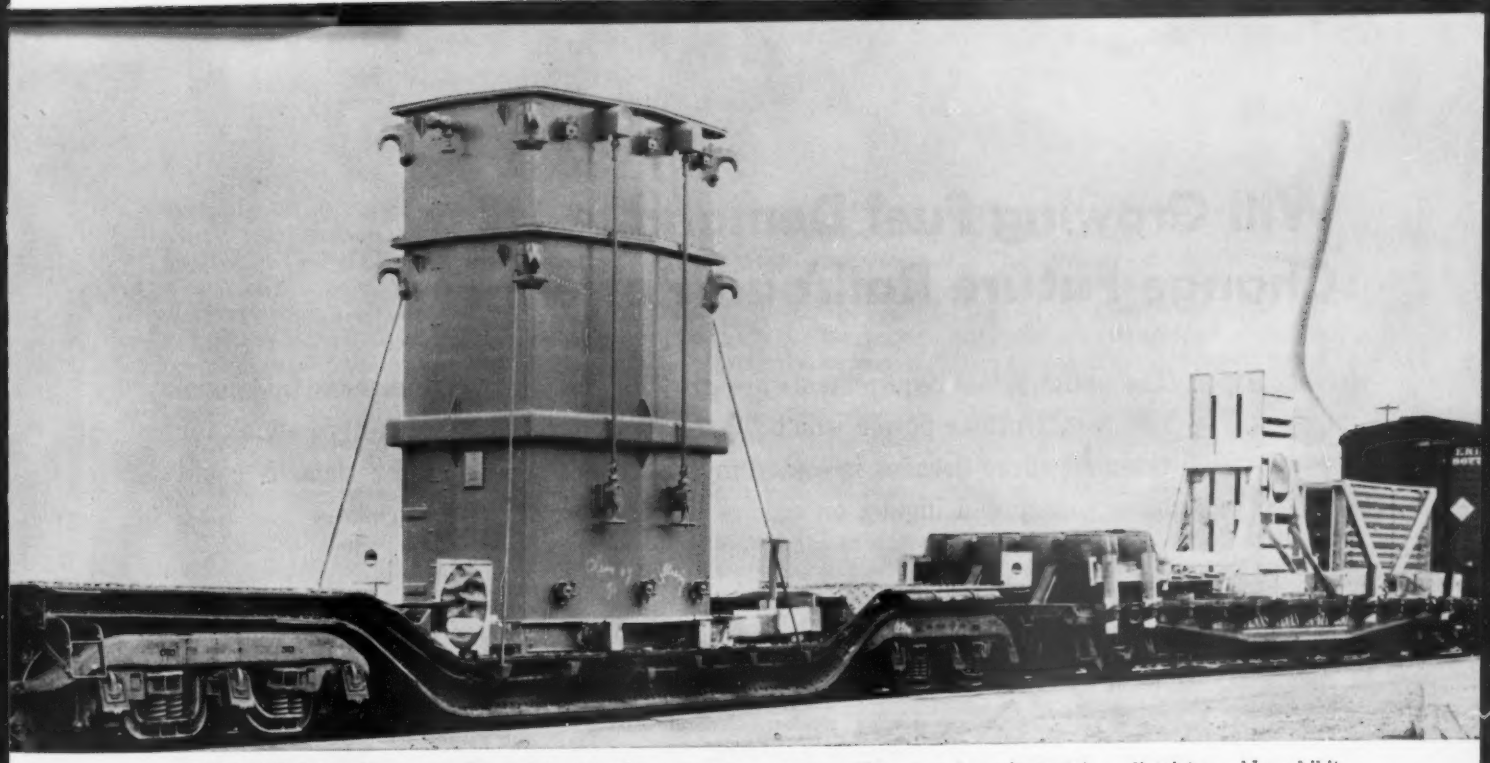
Having selected a district for study, there are many questions to be asked and answered which will require the thought and consideration not only of the entire engineering department, but also of the operating and traffic departments. What type of locomotives and cars are being used? What will the future loadings on this district be? Is it a main line district connecting major terminals, or is it a branch line? What type of bridge is under consideration—a permanent structure, or one of a temporary or semi-permanent nature? And finally, what savings will result from the proposed reduction in design loading?

The current American Railway Engineering Association design loading for bridges is Cooper's E72, which generally conforms to the heaviest types of steam locomotives. The ratings of present diesel locomotives are in the E35 to E56 range, which would indicate the possibility of a reduction in the design loading for bridges. However, certain types of cars and equipment being moved over the railroads, such as wrecking cranes and special-products cars in owner-road service, and ore cars and heavy-duty flat cars, such as transformer cars, in interchange service, have ratings in the E60 to E70 range, with a few cars rating as high as E91. If such equipment is being used on the district, and its use is to be continued, it would of course, prohibit any reduction in the design loading.

Look to the Future

Consideration of the present loading brings up the subject of future loadings, too. It is highly doubtful that they will decrease—but will they remain stationary or will they increase? If it is a district originating agricultural or forest products, or one handling primarily coal, the probability is that in the foreseeable future the weight of the cars and equipment handled will remain about as at present. However, if the district serves an industrial area or one with industrial potential, it is quite probable that it will be called upon to handle loads of ever-increasing weight.

Our transportation department and several of our shippers who are man-



HEAVY-DUTY flat cars, such as this transformer car being moved on the Erie, have ratings in the E60 to E70 range. Use of such equipment in a district would prohibit any reduction in the design loading for bridges.

ufacturers of industrial equipment have advised us that we must be prepared to move increasingly larger and heavier units of equipment if we are to continue to serve industry. The present rapid technological advances in the manufacturing, refining and electrical industries and the economic advantage of fabricating large units in the shop rather than assembling them in the field will make such heavier shipments more and more common. If such loads are to be moved over a district, the strength of its bridges must be adequate.

What of Tomorrow's Locomotive?

The second feature to be considered in the question of future loads is the weight of the locomotives. Present diesels have a rating near E50, but it is possible that this will increase with demands for greater power. The early steam locomotives weighed much less than this, and then rapidly increased to weights equivalent to E72 or greater. Because traction is a function of the weight of the locomotive and the factor of adhesion of steel on steel, an increase in the tractive effort of a single diesel unit must come from an increase in its weight.

In addition to possible heavier diesel locomotives, the development of the steam- or gas-turbine locomotive must be considered. Some authorities expect these turbine types to be the next stage of locomotive development, and the turbine locomotives are definitely heavier than present diesels. And the atomic locomotive may be heavier yet.

Of course, these new types of locomotives are not here yet, and it will probably be many years before they are in general use. When such heavier locomotives are introduced, it will undoubtedly be on the main lines, with the present stock of diesels relegated to expending the remainder of their useful life on the lighter service branch lines. This would indicate that the weight of the locomotives in use on the branch lines may remain constant over a number of years. Therefore, on branch lines that are not expected to handle cars or equipment heavier than these diesels, a reduction in the design loading for bridges would appear to be possible.

Another feature to be considered is the expected service life of the bridges in question. If it is permanent, of steel and concrete construction, it will have an expected life of from 70 to 100 years or more. Recent studies made by the Committee on Iron and Steel Structures of the AREA indicate that in this type of structure there is a maximum saving of only about 3 per cent in the total cost of a bridge by reducing the design loading from E72 to E50. And the corresponding saving in dropping from E72 to E60 was found to be only 1½ per cent. From this small saving, and in view of the prospect of increased locomotive and equipment weights, a change from E72 to some lesser loading for permanent bridges is very hard to justify, and, in my opinion, could be done in only a very special case.

The greatest possibility of savings by the reduction of design loading lies in temporary or semi-permanent structures. In this group are the standard treated timber-pile trestles used extensively by many railroads, especially roads in the timber-producing areas. These bridges have an expected life of 40 to 45 years, which is within the range of time over which we may expect diesel locomotives of the present weights to remain in service, particularly on branch lines.

Savings Up to 20%

Accordingly, if a branch line or light-traffic main line has been investigated and it is found that there is no anticipated use of heavier cars or equipment, I feel that a railroad is justified in effecting whatever saving it can in the cost of renewing timber trestles on this line by reducing the design load to that required for the diesels now in operation. We have found that savings up to 15 or 20 per cent can be realized on this type of bridge by the lighter design.

In the future, when these lighter bridges are nearing the end of their expected service life, the district can again be evaluated to determine whether the lighter bridges should be continued for another cycle, or if a heavier design should be adopted.

Will Growing Fuel Demand Change Future Railroad Power?

The nation's fuel requirements are growing faster than increases in known reserves. Nuclear power won't fill the gap for years. Availability outlook for the next three decades is something railroads must consider since it could have widespread impact on motive power design and fuel costs.

The chart below tells a story that no railroad today can afford to ignore.

Total energy demand is steadily increasing and the nation's fuel needs are shifting. The future "input" from basic energy resources will reflect this pattern of change over the next 30 to 40 years. Availability of fuels may compel big changes in present methods of providing and utilizing energy —and the implications warrant early and careful consideration by railroad managements.

Based on the attention already given this problem, largely by government sources, here's what can happen over the next 30 years:

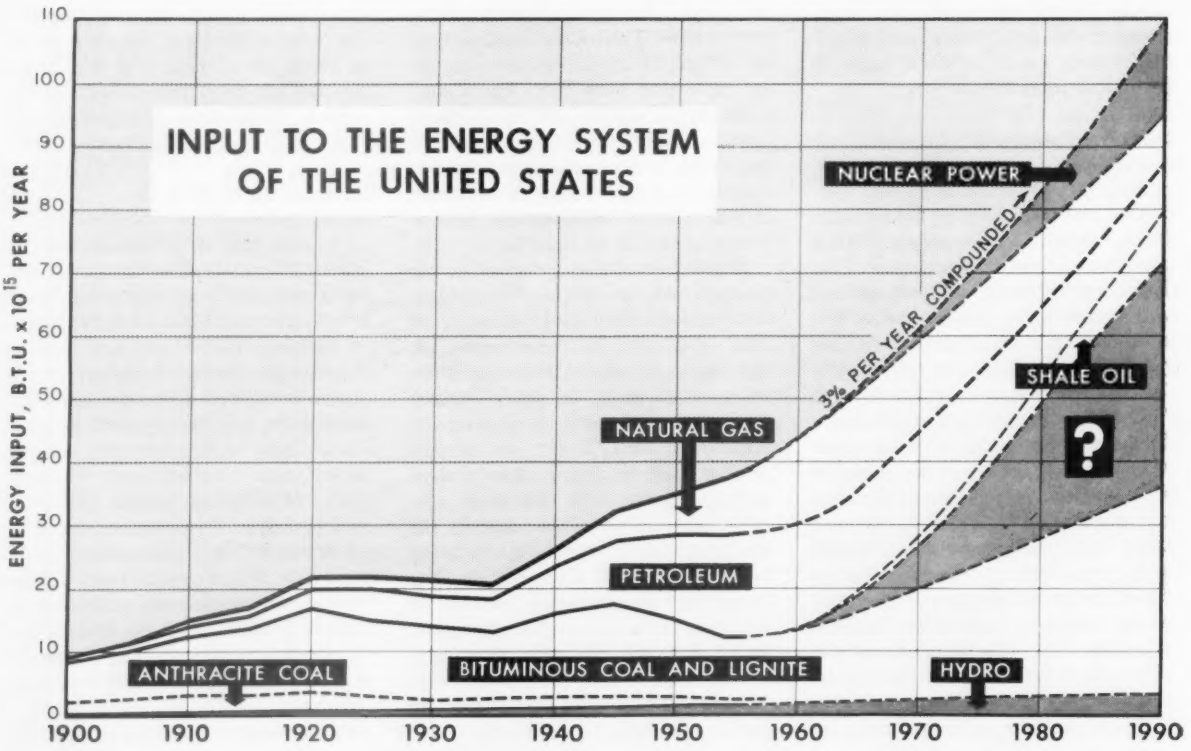
1. Petroleum, now the basic source of railroad power, will, some observers believe, reach a production peak in 1965. This assumes total domestic resources about three times present proved reserves—a conclusion which some authorities consider generous and others, including the Department of Interior, feel is too conservative. Almost all students of the problem do agree, however, that the cost of energy from this source, and from all other sources as well, will show evolutionary price increases during the years ahead.

2. Natural gas, an important energy source for homes and industries, will parallel the petroleum trend. The consequence, though indirect, could be to place present users in competition for other available fuels before 1990.

3. Oil shale is seen assuming a relatively larger role in the energy picture. A big question borders its use, however. If more efficient methods of recovery are developed, shale can more than offset the possible trend to lower petroleum output.

4. Bituminous coal, like shale, is potentially able to fill the question-

This article and the chart accompanying it are based on a study by James F. Young, consultant, energy conversion, engineering services, General Electric Company, New York.



mark gap in the future sources of energy. This gap represents fluid fuel, however, one-half of which is currently consumed in motor (gasoline and diesel) operation. The use of coal will undoubtedly increase, in its own right, but in examining the future of this source at least three questions can be posed:

- *Will it become feasible to prepare fluid fuel from coal?*
- *Will concurrent growing demand for petroleum for materials production tend to further change the economic balance toward coal and nuclear power for uses they can serve through electrification?*
- *Will the necessity illustrated in the chart mother an invention in electric energy storage so mobile use of energy will be provided from some other source than capital petroleum resources?*

5. Nuclear and hydroelectric power and anthracite coal are not expected to make significant contributions to available energy in the next three decades. Their respective roles are pointed up graphically in the chart. Other income sources—like solar energy, wood, wind, wave and photosynthesis—are not noted at all because their contribution, though growing in importance now, is not expected to alter substantially the other relationships illustrated. Nor is the contribution of thermonuclear fusion considered because its contributions during the period shown are not expected to be large.

This outline of future energy sources suggests, as noted earlier, that an evolutionary rise in the cost of energy may be expected during the years ahead. A second prospect is that the means of providing and, in some cases, utilizing energy can be expected to undergo changes which will have greater impact on our present business and economic system than changes in energy costs.

The outlook calls for careful, and early, study by major users of energy. Railroads engaged in long-range planning are not overlooking the importance of study of all aspects of this energy-source problem.

Music Is Getting a Bigger RR Play

It adds another debit to passenger accounting ledgers but it's found acceptance among travelers and the list of users swells.

Fresh and relaxed after a night's rest, a clerk in the Baltimore & Ohio car service department at Baltimore is apt to catch himself any morning humming a quiet melody and even working in time with an easy-going, carefree tune. A bit later in the day, frustrated and edgy, perhaps, from routine and sometimes tedious chores, he might turn to toe-tapping and whistle a bouncy rhythm that gives him a refreshing lift.

It's no accident. The B&O, with the approval of its personnel, plans it that way.

"Piped" into the car service offices are recorded songs designed to make it easier for an employee to do his job. It's a subtle form of creating a comfortable atmosphere and the B&O reports that "light, soothing selections are offered during the morning hours, but, near the end of the day more sprightly tunes are used in an effort to help employees combat fatigue."

Thus, a railroad joins a sizable list of other-industry companies which have decided that if you're prompted to "whistle while you work," you not only are more content while you work but you are likely to do a better job.

"Music to work by," however, is just one use of recordings on the railroads—many of which have long featured seasonal music programs in terminals, particularly at Christmas time.

Another, and apparently still-growing, area of music in railroading is in passenger-train service. It's nothing new—the Santa Fe, the Atlantic Coast Line and the Norfolk & Western have had recordings on "name" trains since 1950. How much growth there is in the application can be judged by this: six other roads made initial record playing-equipment installations last year. Other roads are reported to be "interested" in the possibilities of similar installations and some of those that went in for "music to travel by" in 1956 or sooner are considering extensions.

Certainly one big reason for the more-or-less recent popularity of providing music on passenger trains is the changeover from wire recordings to tape recordings. Muzak Corporation, chief supplier of recorded music in public places, reports that switching from wire to tape in transport installations (airplanes and ships as well as trains) helped to eliminate distracting sounds and improve tone quality.

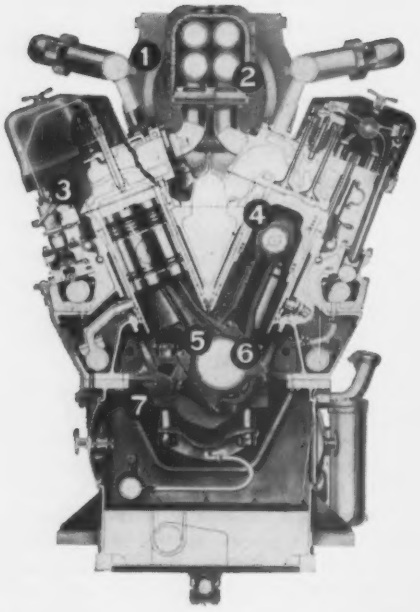
This switchover from wire to tape proved to be the answer on the Nor-

(Continued on page 50)

WHAT TRAIN MUSIC COSTS

The Northern Pacific, noting that expenses depend on what type service is wanted, says its installations have averaged about $16,000 per train. That breaks down like this:

Dome Coach (2)—$580 each. Equipment: speakers, train line, control box.
Day-Night Coach (2)—$940 each. Equipment: as above.
"Travelers' Rest" (1)—$1,450. Equipment: as above, plus radio.
Diner (1)—$7,600. Equipment: speakers, train line, paging unit, tape unit, radio, and amplifiers.
Sleeper (2)—$515 each. Equipment: as dome coach.
Dome Sleeper (2)—$550 each. Equipment: as dome coach.
Sleeper-Observation (1)—$1,400. Equipment: as "Traveler's Rest."
Additionally, this road reports $85 monthly tape rental costs, $400 for monthly maintenance labor and $35 for maintenance materials.



Cross section of 244 engine shows major improvements accomplished in reprofiting: (1) water-cooled turbo; (2) Ni-Resist exhaust manifold; (3) high-pressure fuel injection system; (4) Ni-Resist insert pistons; (5) grooveless and partially grooved bearings; (6) hardened, chrome-plated crankshaft; (7) serrated cylinder block and caps.

REPROFIT

YOUR LONG-SERVICE ALCO LOCOMOTIVES

New ALCO program reduces maintenance costs, raises locomotive availability; returns are large for small investment

We call it "reprofiting"—a way you can obtain a much higher return on your long-service ALCO 244-powered locomotives at a small investment. It's a return that—if you are operating more than a few locomotives—can run into six figures a year. That's important money, and this is how reprofiting works to gain it for you.

Reprofiting lowers the operational cost per mile of long-service locomotives. Diesel-engine design and performance standards have changed markedly in the past ten—or even five—years. Substantial design improvements have been made in the 244 engine, particularly in areas where maintenance was high. Result: engine maintenance costs can be reduced materially by the reprofiting process, which includes application of improvements such as hardened crankshaft, better bearings, water-cooled turbo, Ni-Resist exhaust manifold, serrated fit between caps and block and others.

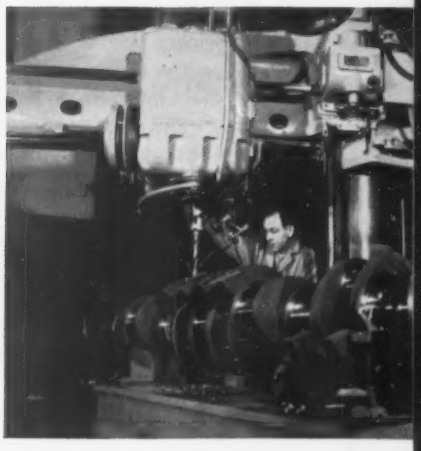
Reprofiting adds locomotives to the fleet. Programs nearing completion have demonstrated that substantial increases in mileage per month per unit are the result. Design improvements provide increased service life and assure greater dependability.

The cost of reprofiting is low. And the least expensive way to accomplish it is through ALCO's programmed plan. ALCO has the equipment, the personnel and the techniques to accomplish this work at the best price. All work done in ALCO reprofiting, as well as the parts applied, is covered by an ALCO warranty.

We hope you will investigate reprofiting. Your ALCO representative can give you more details, and he will work with you in developing specific data and in drawing up a reprofiting plan. Or, if you wish, you may initiate action by writing Transportation Products Division, Dept. TR-2, P.O. Box 1065, Schenectady 1, N. Y.

ALCO **ALCO PRODUCTS, INC.**
NEW YORK
Sales Offices in Principal Cities

ALCO completely remanufactures 244 engines in reprofiting schedule. Engine is dismantled, cleaned, parts repaired, major improvements applied. ALCO's programmed plan of reprofiting incorporates best features of unit exchange and repair-and-return.



Special ALCO facilities, such as those for chrome-plating crankshafts, lower the cost of reprofiting for you. You also get the advantage of work done by specialists who know the engine best. Shaft, right, has been chrome-plated for hardness and machined back to original dimensions, now is being balanced. Cost: a fraction of that of a new shaft.

Music Is Getting

(Continued from page 47)

folk & Western, where wire recordings on its "Powatan Arrow" were considered unsatisfactory.

Why, it might be asked, would a railroad plow additional money into its already debt-seared passenger operations? What is it that motivated the Pennsylvania to add music to the menus in its "Broadway Limited" dining cars? How about the New York Central, which made a similar move on the "Twentieth Century" in the face of widespread criticisms that it was bent on pricing itself out of first class passenger services?

Apparently, it's a matter of service. As a PRR spokesman said, "insofar as the music in the 'Broadway' diners helps maintain our service on a level with the better class hotels and restaurants, its is probably worthwhile." Both the Central and PRR, however, indicate that they are just experimenting with music now—although the report from the NYC is that the reaction of passengers thus far has been "very favorable."

Selection of music for train installations varies even more than it does in the B&O's office setup. Different roads have different preferences and each of them likes to suit the music to the time of day.

The Santa Fe, with over 50 trains fitted with musical systems, insists on separate luncheon and dinner programs to be played in dining areas and has a third program of popular music and a fourth of semiclassical pieces piped throughout the trains.

Programs are broken up during the days on most trains, too, as on the Canadian Pacific's "Canadian" and "Dominion" where 18 dining room cars are equipped with "travel Muzak." The CPR reports that "playing time" on each of these trains is about five or six hours a day, starting at 11 a.m.

Nap time for its transcontinental passengers is held more-or-less sacred by the Great Northern, which has transcribed music on its "Empire Builder" and "Western Star." It's been found that long-haul travelers prefer quiet periods in both morning and afternoon and so the music is silenced at appropriate times. Likewise, the evening program is "broadcast" for only a short period.

Muzak reports that even the geographical area the train serves has an effect on the type music to be offered. The "Broadway" and "Twentieth Century" tapes run, therefore, to Broadway show tunes, and recent hits interspersed with traditional favorites and semiclassics. On the CPR, it's reported, "more conservative music is programmed," with separate channels of light, background music and semiclassical selections.

A combination of music types offered in leading hotels and restaurants is required by the Union Pacific. It has music in its "dome" diners, "Redwood" lounge-bedroom cars and the Pullman and dome coaches and observation cars on its "City" trains.

None of the railroads cares for vocal selections and there's an absolute abstention from "rock and roll," brassy or "jazz" numbers—the idea being that the music is offered to combat travel fatigue or boredom. It's not meant to compete with scenery or other interests for a rider's attention and it's definitely not intended to stifle conversation.

Some roads make use of the sound outlets for pick-up of radio programs or news broadcasts. Others, like the B&O, have stewardesses announce arrival and departure times and call out points of interest en route.

The B&O, incidentally, learned through experience that too much of a good thing can boomerang. After outfitting all cars of its "Columbian" with music outlets in 1949, some passengers complained it was distracting. Compromising, the road confined the music to dining cars where, a spokesman reports, it "has proved extremely popular."

WHAT'S IN A MUSIC INSTALLATION?

The Atlantic Coast Line has train-installations of "travel Muzak" on its "Champions" and the wintertime "Florida Special."

Its installations include Western Electric program distribution panels located in lounge cars where programs are originated and controlled, providing up to six hours of continuous music per reel of tape.

Car attendants operate the program panels which include facilities for picking up radio broadcasts or making train announcements. The panel is in a special enclosure which picks up filtered air from the train air conditioning system for ventilation of the electronic equipment. Passengers in room accommodations can select from background or semiclassical recorded music programs, tune in radio broadcasts or hear train announcements which, when made, interrupt other programs.

Programs are carried from the control panel to all other cars over a special train line which has flexible jumpers between each car. Loudspeakers are installed in the open areas of coaches, lounges and dining sections, controls being operated by railroad personnel in these cars.

Two tape machines, two crystal-tuned radios, three amplifiers, a handset for announcements, a speaker to permit monitoring of programs, and necessary switches are located in the program panel enclosure.

'Yard Stick' for CTC

(Continued from page 40)

operated switches are reduced by signals and switch machines. These reductions may be determined from speeds-distance and time-distance curves prepared for various types of trains.

Since traffic fluctuates from day to day and season to season, and as there may be entirely different patterns in the future—for instance if shorter or longer trains are introduced—it is desirable to have a measure of the capabilities of proposed "plants" under future conditions, whatever they may be. The answer to this question as well as many others, which are of vital interest in connection with train operation with or without CTC, seems more likely through statistical studies of railway operations than through any other practical way.

The concept of the amount of delay associated with each interference between trains, being a measure of the effectiveness of track arrangements and operating method, seems to point a way out of the obscurity which at present surrounds CTC. The

studies of delays on the Canadian National are fairly conclusive for certain single-track lines because of the variety of territories sampled and the size of the samples. Nevertheless they should only be considered as a start in throwing more light on a major area of railway operations which needs to be better understood.

The industry needs much more data on many more installations. When this data has been classified, this facet of signal engineering will become more of a science and less of an art than it is today. "Plants" may then be designed to match traffic and railway economies more closely and, also important, railways will have a new yard stick for measuring and comparing performance.

The cost of collecting data as described is small, compared to its value, and it is hoped that all roads with CTC in service on single and multiple track will collect and correlate such information, and make it available. They owe it to themselves and the industry to take advantage of the earning potential of CTC. Fuller exploitation of that potential will be possible when more pertinent statistical data is available.

People in the News

INTERNATIONAL COOPERATION ADMINISTRATION.—Loyd J. Kiernan, retired executive vice-president of the Boston & Maine left June 2 for Katmandu, Nepal, where he will be engaged on studies of proposed extension of railroad mileage. About August 1, Mr. Kiernan will go to Colombo, Ceylon, for a project connected with administration of that country's railroad system. Both projects are part of the technical assistance program sponsored by the ICA.

MAINE CENTRAL.—J. Edmund Bouchard, train dispatcher, Bangor, Me., appointed trainmaster there, succeeding **A. W. Crocker,** who retired from that post April 30, but retains his status as engineer.

MILWAUKEE.—Clarence P. Schwarz, city freight agent, Chicago, appointed coal freight agent there, succeeding **A. J. Keller,** who retired May 31.

Robert Moreland, traveling freight and passenger agent, Winnipeg, Man., appointed district freight and passenger agent at a newly opened traffic department office in Edmonton, Alta., effective June 1.

Chester J. Delin appointed district safety engineer, Tacoma, Wash., succeeding **Lawrence W. Dietrich,** who died May 8 at Seattle.

C. W. Reynolds, assistant purchasing agent, Seattle, has assumed the duties of **C. S. Finlayson,** assistant to chief purchasing officer, Seattle, who retired May 31. Mr. Finlayson's title abolished.

MINNEAPOLIS & ST. LOUIS.—J. F. Dombeck promoted to general auditor.

Victor L Arenth
SP

R. H. Blassingame
T&P

SANTA FE.—R. D. Wood, safety supervisor, Clovis, N.M., transferred to newly created position of safety supervisor, Chicago.

SEABOARD.—W. V. Gresham, assistant to vice-president, freight traffic, and **W. A. Marshall,** freight traffic manager, Norfolk, retired May 31.

D. D. Langford, superintendent car department, Savannah, Ga., moved to the Seaboard's new division office building at 3019 Warrington Avenue, Jacksonville, Fla., on June 7.

SOUTHERN PACIFIC.—Victor L. Arenth, assistant freight traffic manager, Los Angeles, promoted to freight traffic, manager, Southern district, at that point, succeeding **Virgil F. Frizzel,** who retired May 31. **Robert A. Houck,** general freight agent, Los Angeles, succeeds Mr. Arenth. **Frank M. Guerin,** assistant general freight agent, Los Angeles, replaces Mr. Houck. **R.C. Pender** continues as assistant freight traffic manager, rates and divisions, Los Angeles. **J.B. Haggerty,** district passenger agent, San Francisco, appointed general passenger agent there, succeeding **T. Louis Chess,** retired.

TEXAS & PACIFIC.—R. H. Blassingame, assistant superintendent, Baird sub-division, Big Spring, Tex., appointed superintendent, Louisiana division, Alexandria, La., succeeding **K. D. Hestes,** transferred to the Western division, Big Spring, to replace **A. C. LaCroix.** Due to reasons of health, Mr. LaCroix appointed car service agent, office of general superintendent transportation, Dallas. **George W. Stone,** assistant superintendent, Toyah sub-division, including Big Spring Yard, Big Spring, succeeds Mr. Blassingame, and in turn is replaced by **Charles S. Baldwin,** trainmaster, Western division, Big Spring. **Ernest R. Chaney,** road foreman of engines, Eastern division, Mineola, Tex., named trainmaster Eastern division, succeeding **C. Percy, Jr.,** transferred from Mineola, to replace Mr. Baldwin.

OBITUARY

William E. Curley, 63, superintendent of the Chicago terminal of the **Illinois Central,** died May 28 in Illinois Central Hospital, Chicago.

Supply Trade

L. A. DePolis, general sales manager, Industrial Truck Division of **Clark Equipment Company,** has been promoted to director of sales, and **Bert E. Phillips,** assistant sales manager, has been advanced to sales manager. Two product sales managers have also been announced for the division—**Phillip E. Campbell** for the gas truck section and **John Borman** for the attachments section.

George W. Stamm, general manager of sales, **Crucible Steel Company of America,** has been elected also vice-president, succeeding **James D. Glenn,** who asked to be relieved of his responsibility as vice-president, sales, because of illness.

John F. Rittenhouse, executive vice-president of **C & D Batteries, Inc.,** has been elected president, succeeding the late **Leon A. Doughty. Frank S. Carlile** has been elected board charman and **Louis M. Eble, Jr.,** vice-president.

Emmett P. Dowling has been elected president and chief executive officer of **Youngstown Steel Door Company. John P. McWilliams,** formerly chairman and president, has been reelected chairman, and **Walter H. Rosenbush,** treasurer and assistant secretary, has been elected a vice-president. Mr. Dowling was graduated from Western Reserve University's school of law in 1941. He joined Youngstown Steel Door Company in 1946 to handle government contracts, and was transferred to the Chicago office in 1951 as assistant vice-president of Camel Sales Company, a subsidiary, which he served until the end of 1955. He returned to Cleveland to become assistant president of Youngstown Steel Door on January 1, 1956.

Gus Welty has been appointed regional news editor of Railway Age at Chicago, effective June 1. Mr. Welty formerly was with the Greensburg (Pa.) Tribune-Review and has been a free-lance writer and photographer on railroad subjects.

ACF Industries, Inc., has established a new operating division, called the Advanced Products Division, as part of a major realignment of products and plants. Manufacture of products for the petroleum, gas, chemical and nuclear energy industries, such as pressure vessels, processing equipment and tanks, will be concentrated in the new division. Sales of tank cars to industrial users will be handled by Shippers' Car Line division as agent for the Advanced Products division. American Car & Foundry division will continue to be responsible for tank car sales to railroads.

L. B. Foster Company has added **Raymond J. Warren** to its Chicago sales staff.

L. A. DePolis

Emmett P. Dowling

Should Railroads Be Subsidized?

There is no other big industry in the country as consistently anti-socialist and anti-subsidy as the railroads. Unlike some other large enterprises, the railroads show their faith in capitalistic self-reliance by deeds, not just by words.

The leaders of most other businesses are probably also sincere believers in the principles of free enterprise. Nevertheless many of them have yielded to the temptation to compromise their principles when it has been to their financial interest to do so. Many large industrial companies, for example, are making growing use of toll-free inland waterways; and are resisting efforts to make waterway improvements self-sustaining. Highway interests have succeeded in getting Congressional approval for a huge increase in "federal aid"—in order to expand the highway system much faster than highway users would pay to expand it.

Charging for a Service Is No Subsidy

Meantime, railroad leaders are so allergic to semi-socialism in the form of government subsidies that they seem to suspect themselves of compromising their principles, when they have not done so at all. Take the matter of suburban passenger service, for example. Several railroad leaders have frankly said they believe communities that benefit from such service should bear that part of its cost which cannot as a practical matter be collected from the passengers. And some railroad people appear to believe that such payments would be "subsidizing the railroads."

Such contributions would *not* be subsidies to the railroads. A government subsidy is a payment to private interests for doing something they want to do. If federal, state and local governments would permit the railroads to retire from the commuter business, probably most of them that provide such service would be happy to do so.

It is not more a subsidy to a railroad for a community to pay to make suburban train service self-sustaining, than it is a subsidy to an electric company when the same community purchases electric power for street lighting. Fair payment for a service a business renders to a community is not a subsidy to the business.

This paper hopes the railroads will continue to be torch-bearers for free enterprise. Meantime, however, they are forced to live in an environment which is becoming more socialistic all the time. It is increasingly difficult for a business to live entirely on its own revenues, when competing businesses are getting more and more assistance from the public treasury.

But the railroads have such inherent technological and economic advantages—for most kinds of transportation—that they should still be able to survive and prosper, despite the handicap of not getting the public aid their rivals do. They can do this, however, only under one condition. This condition is that—

They must insist that people (including government) who demand a service should pay not less than the cost of providing it—and, if such payment is not forthcoming, that the service be withdrawn.

Railroad people are as alert to the dangers of government subsidies as a smart dog is to a porcupine. But are they equally alert to "internal subsidies"? An "internal subsidy" exists when stockholders have to get along with small dividends or no dividends, because some of the money that ought to be theirs is being used to provide transportation for some customers at less than cost.

Monumental passenger stations in big cities represent a service to the community rather than, primarily, to the railroad and its passengers. It is an "internal subsidy" when stockholders (or freight shippers) have to contribute to capital charges and property taxes on these structures. It would not be a "government subsidy" to the railroads if communities having such stations were to free them from property taxation and contribute to their capital and maintenance expense. It is not a subsidy when any branch of government is asked to make a compensatory payment to the railroads for a specific service—whether this service be hauling people or goods or "stockpiling" facilities and equipment which the defense authorities believe would be needed in a possible military emergency.

Many Kinds of "Internal Subsidies"

When a railroad is required to pay an employee a day's wages for 2 hours' work, that also is an "internal subsidy"—as it is when unnecessary employees are coercively kept on the payroll. It isn't just in passenger service that patrons and communities are frequently getting more than they are paying for (at the expense of railroad owners and their profitable customers). There are freight services also which are supported by subsidies of the "internal" type.

It isn't alms the railroads need from the public treasury, but *quid pro quo* for services rendered to government. The railroads are in no position to play Santa Claus, whether to shippers, passengers, or the national or local governments. The more quickly and more thoroughly they stop being Santa Claus, the stronger and more effective anti-socialists they will become; and without need to compromise the principles of private enterprise.

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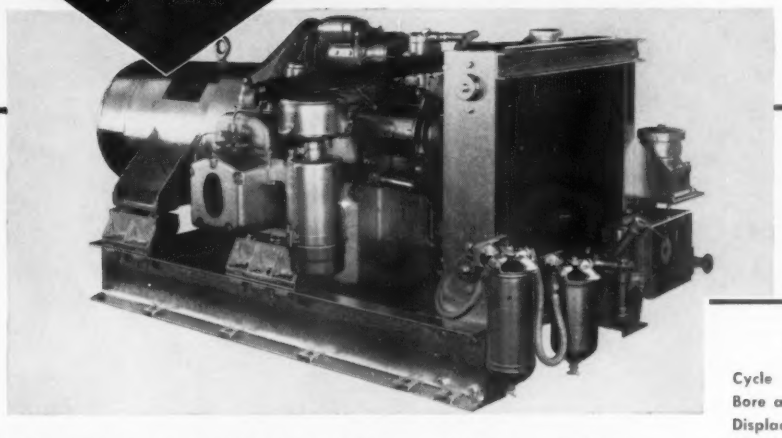

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Electro-Motive Division, General Motors ..Front Cover
Fairmont Railway Motors, Inc. 35
Farr Company 37
General Railway Signal Company ....Back Cover
Hanover Bank, The 34
International Nickel Company, Inc., The 16
Jackson Vibrators, Inc. 12
Linde Company, Division of Union Carbide & Carbon Corporation ....Inside Front Cover
Midwest Steel Corp. 53
New York, Ontario & Western Railway 31-33
Rust-Oleum Corporation 19
Socony Mobil Oil Company, Inc. 23-30
Speno Railroad Ballast Cleaning Company, Inc., Frank 20
Teletype Corporation 8
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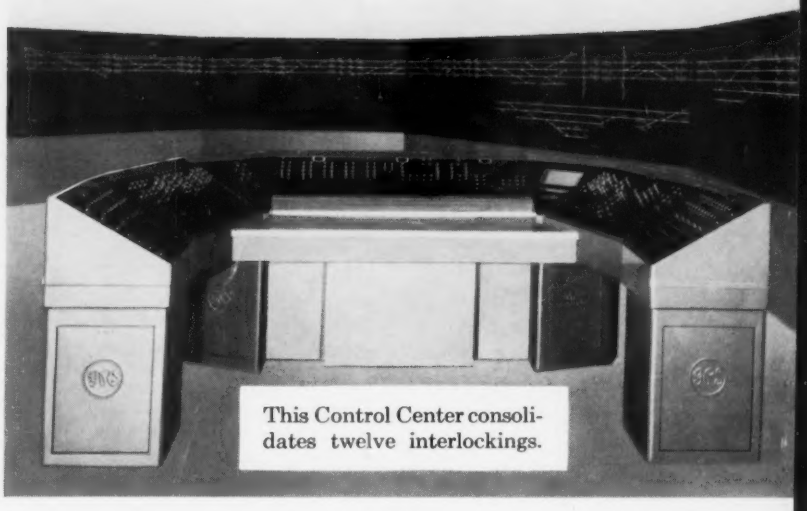

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